METHOD AND
EPISTEMOLOGY IN
EARLY
PRESOCRATIC
PHILOSOPHY

by John Peter Gregory

A thesis submitted for the degree of Doctor of Philosophy of The Australian National University

January 1998
I declare that this is an original work: that it contains my own ideas except where otherwise indicated:

[Signature]
Abstract

Dedicated to

Anna Marie Daniel
Abstract

The main purpose of this thesis is to trace the first steps in epistemological thought: specifically, the epistemology of the Presocratics from Thales to Zeno, except for Pythagoras and the early Pythagoreans. Not all of these philosophers made explicit epistemological statements: in this case I try to determine the epistemological presuppositions and/or implications of their philosophy. In doing this I will also examine the methods by which these philosophers underwent their scientific and metaphysical inquiries.

For these early Presocratics epistemology is essentially a side issue: they are only concerned with epistemology, if at all, in so far as it relates to their own particular scientific or metaphysical concerns. These concerns change from philosopher to philosopher, hence epistemology does not develop along a simple linear course. Having said this the story proceeds essentially as follows.

We can see that the Milesian empirical method, at least, does not develop ex nihilo by comparing them to the Greek epistemological sentiments expressed in Homer. Their method does stand in contrast to these sentiments in that they do not rely on divine revelation; but in other respects they only built on them – in particular inferences from observation to matters beyond immediate experience are found in Homer, and these are developed by the Milesians. Unlike the Milesians, Xenophanes explores the epistemological implications of this empirical method. Essentially, he elaborates its imperfections: it can never lead to knowledge; but by accruing more and more evidence for a given theory we can show that theory to be closer to the truth than the alternatives.

Xenophanes' scepticism may have dissuaded Heraclitus from accepting the methodology of these first philosophers; but, for whatever reason, he develops an entirely new methodology and epistemology to suit his own particular purposes. His method is still empirical, but it does not involve empirical inference: he claims that we can penetrate beyond what is immediately apparent to the unapparent, but still observable, truth by appropriately interpreting what we see. And he, unlike Xenophanes, has no doubt as to the veracity of his method. Likewise, the Eleatics were convinced that their method could lead only to knowledge. For Parmenides only reason could lead to certain metaphysical truths about the substratum of reality. But for Melissus, and possibly Zeno, reason leads to conclusions about reality as a whole that directly contradict the senses. This rationalism was not the invention of the Eleatics, but it was the invention of the early Presocratics: it occurs in the Milesian and Xenophanes, but no earlier, as far as I can determine.
The basic story line, then, is as follows: methods of inquiry developed fairly unconsciously at first, but dissatisfaction with their results led to conscious reflection on these methods; and this in turn led to reflection on the epistemological consequences of the given method. The main consequence of this reflection on epistemological consequences was a movement away from the unconscious acceptance of empirical knowledge, culminating in its explicit rejection.
Acknowledgments

Introduction

Chapter 1  Of gods and mortals: epistemology in the Iliad

The gods know all, mortals know nothing 10
Contradictions of ‘the gods know all’ 12
Problems with ‘mortals know nothing’ 13
The use of epistemic terms 15
   a brief note on practical knowledge and wisdom 19
Transmission of knowledge from the gods to mortals 19
   directly 19
   to seers 21
   through signs 22
   divine testimony as a source of knowledge 22
   section conclusion 24
Interaction between the gods and the phenomenal world 25
So what does ‘the gods know all, mortals know nothing’ mean? 27
The power relation between gods and mortals 28
Conclusion 29

Chapter 2  Reason, observation and the critical tradition in the Milesians and Xenophanes

A priori reasoning 32
   Anaximander 32
   Xenophanes 35
Empirical evidence 38
Analogy 45
So what was the methodology of the Milesians and Xenophanes? 51
The critical tradition 57
The new approach 58

Chapter 3  What Xenophanes says about all things

Of what does Xenophanes speak? 62
Seeing is knowing 65
We know only what the world tells us 66
As sure as god is in his heaven 69
General scepticism 71
Some more remarks on scope 72
I must thank the following people for either their help or their perseverance during the years in which this thesis was produced: Anna Daniel and my family — Jim, Kevin and Joan — for their endurance; Crystal the wonder dog for her special support; Beverly Shubert for her help in all things administrative. And my supervisors Paul Thom for his help throughout.

I would also like to thank Bob Farnes for putting my mind at rest on the classical aspect of the thesis and Elizabeth Bouchen for reviewing the chapter on Homer and her patient charity in teaching the Greek language.
Acknowledgments

I must thank the following people for either their help or their perseverance during the years in which this thesis was produced. Anna Daniel and my family – Joy, Kevin and Mark – for their endurance. Crystal the wonder dog for her financial support. Beverley Shallcross for her help in all things administrative. And my supervisor Paul Thom for his help throughout.

I would also like to thank Bob Barnes for putting my mind at rest on the classical aspect of the thesis; and Elizabeth Minchin for reviewing the chapter on Homer and her persistent clarity in teaching the Greek language.
Introduction

The purpose of this thesis is to recount the birth of epistemology. I use the term ‘epistemology’ very loosely, but roughly to mean ‘reflections on, or assumptions about, our cognitive relations to the world’ – knowledge, understanding, and wisdom are some examples of such cognitive relations. Standard definitions such as “the branch of philosophy concerned with the theory of knowledge” (Flew: 1984, p. 109) are not very useful in the study of Presocratic philosophy (cf. Everson: 1990, pp. 3-6). Firstly, epistemology could hardly be considered a ‘branch’ of philosophy for the Presocratics: it was a side issue. Secondly, there was no conscious restriction of concern to the concept of ‘knowledge’. This is especially so for Heraclitus, who was principally concerned with the concepts of ‘wisdom’ and ‘understanding’.

Even with this broad definition, epistemology was not fully born, was not truly philosophical, until the Eleatics. So this account will be concerned with the Presocratic philosophers from Thales to Zeno, except Pythagoras and early Pythagoreans. However, I will begin my account with an examination of the epistemology of Homer’s *Iliad*. Homer provides a context for the epistemological developments of the early Presocratics. We will see that, although some elements of the methodology and epistemology of the early Presocratics seems to be their own invention, much is merely a development of themes found in the *Iliad*. Much more could be done in examining the epistemological presuppositions and methodology of the Presocratics’ predecessors, and their non-philosophical contemporaries; but the principal concern of this thesis is the early Presocratics themselves, rather than their preconditions. Still some context is required, and, as the largest extant work of Greek literature prior to the Presocratics, Homer seems to be the best source for this.

The epistemology of these early philosophers did not develop along a simple linear course, but nor did their philosophy in general. Indeed significant shifts in epistemological theories were only a by product of changing scientific or metaphysical concerns. Specifically, Heraclitean epistemology is quite different from that of the first philosophers (the Milesians and Xenophanes), just as Eleatic epistemology differs from that of Heraclitus and the first philosophers alike; but these different epistemologies are a direct result of both Heraclitus and the Eleatic’s preoccupation with metaphysical issues that had not concerned their predecessors. This does not mean that the epistemology of Heraclitus or the Eleatics bears no relation to what precedes them. On the contrary, elements of Heraclitean epistemology reflect themes developed in the *Iliad*; and the rationalism of the Eleatics had its precursor in Anaximander and Xenophanes.
Initially epistemology was only concerned with how we can know, or understand, scientific matters – things beyond everyday experience. So it was not a truly, or at least not a fully, philosophical enterprise from the start since this requires a concern for the nature of knowledge, or the like, in general. In the *Iliad* the principal source of knowledge for things beyond one’s own experience is divine revelation, although occasionally mortals made inferences from observations to conclusions about unobserved events. The philosophical revolution inaugurated by the Milesians mainly involved the removal of the gods from explanations of the phenomena; so, not surprisingly, they also discarded divine revelation as a source of knowledge of such explanations. Consequently, it was necessary for them to develop a more extensive and varied use of inference from observation in elaborating their scientific theories. Although they also used *a priori* arguments, these were essentially minor and *ad hoc* additions to the primarily empirical method. Xenophanean epistemology derives from this Milesian methodology. Xenophanes argues that we cannot know about scientific matters (among other things), but does not reject scientific inquiry because of this. He still believes that it is possible to demonstrate that one theory is closer to the truth than any other by accruing a larger amount of evidence for it.

Heraclitus may have been dissuaded from accepting the methodology of the first philosophers by Xenophanes’ scepticism. But, as noted, his epistemological theories relate to his particular metaphysical concerns: he wished to demonstrate that opposition pervades and interconnects the cosmos; and his epistemology is concerned only with how we can come to understand this. His method is still empirical, but it does not involve empirical inference: it requires us to interpret what we see so as to penetrate beyond what is immediately apparent – to the unapparent but observable principle of opposition. As with inference from observation, such perceptive seeing occasionally occurred in the *Iliad*.

Parmenides’ metaphysical concern is the nature of the physical substratum of reality; and to determine this he abandons empirical method all together. The nature of this substratum is determined solely by *a priori* reasoning: the senses are shown to be not merely useless in this, but to be positively misleading. The nature of the substratum is still a scientific concern. It is with Melissus, and perhaps Zeno, that epistemology is extended to everyday experience. Melissus adopts Parmenides’ *a priori* reasoning, but misconstrues his reference to the substratum of reality as a reference to reality in general. Hence, just as Parmenides’ substratum lacks the qualitative features of the phenomenal world, so does reality as a whole for Melissus. Consequently, the phenomenal world does not exist, thus our everyday experiences are false. So it is with Melissus that a truly philosophical epistemology first emerges.

Not surprisingly, this brief summary of early Presocratic epistemology is considerably neater than the full picture. So a fuller summary of the different philosophers is required.
The principal source of knowledge in the *Iliad* is direct visual experience. This proves to be true of both human and divine knowledge. It has been argued that for Homer knowledge was actually identified with direct visual experience – that is, \( P \) knows \( x \) iff \( P \) sees \( x \). However, a thorough examination of the *Iliad* proves this to be untrue. Firstly, what is known may not itself be seen, it may be inferred from what is in fact observed; so \( P \) may know \( x \) by observing \( y \). Secondly, what one person knows may be based on the testimony of another; typically this testimony is based on what someone saw; so \( P \) may know \( x \) because \( Q \) saw \( x \). Furthermore, there is a strong role in the *Iliad* for perceptive seeing: that is, sometimes it is necessary to see below the surface to know what is really going on; it is not always enough to just notice what is immediately apparent. This still leaves most knowledge firmly based in the empirical realm. This is not surprising since there does not seem to be anything beyond the phenomenal world in the *Iliad*; even the gods are very much a part of this world.

The most important source for knowledge of things beyond one’s own experience in the *Iliad* is divine revelation – the testimony of the gods. There are three ways in which information may be revealed to mortals by the gods: through seers, who seem to have a special relationship with the gods; through signs that require interpretation; or directly to laymen (non-seers). The first of these seems to be the most reliable, and may be the only sufficiently reliable to provide knowledge. Indeed it is sometimes claimed that divine revelation is the *only* source of human knowledge since Homer expressed the contrasting claims of general human ignorance and divine omniscience. I dispute this reading, and argue that the relationship is one of degree: that the gods know far more than people; but people are not completely ignorant, even when left to their own devices, nor are the gods omniscient.

When we turn to examine the Milesians, we must contend with a dearth of material to work with. Principally, we find that there is not one extant epistemological statement attributed to these philosophers. Hence I attempt to get at their epistemological presuppositions indirectly via their methodology. Did they use empirical evidence or rational arguments to support their theories? I find it necessary to do a fairly detailed review of the relevant material. As a result of this, some of the textual evidence will be found questionable, and we will find that many observations made by the Milesians were not meant as evidence for any theory (particularly, where observations are used in analogies). But a picture of Milesian methodology does emerge all the same. It is, however, a rather messy picture. It seems that all forms of divine revelation are rejected by the Milesians. But the strong empirical tendencies of the *Iliad* remain. The concerns of the Milesians were about things beyond direct observation such as the creation of the world and its structure. However, they do seem to have relied on direct experience somewhat, probably as far as was possible. But the nature
Method and epistemology in the early Presocratics

of their concerns requires that empirical evidence for their theories is mostly indirect. And they do rely far more than the mortals of the *Iliad* on inference from experience, which results in a greater variety in the nature of these inferences. Another thing that comes out in our review of the relevant material is how weak much of the evidence is: a single observation loosely related to a theory seems to be sufficient support for that theory.

I also conclude that Anaximander, at least, used *a priori* reasoning. The unsystematic combination of empirical and *a priori* support for their theories, plus the equally *ad hoc* variety of empirical arguments, plus the lack of rigour in these arguments, make perfect sense if we view the Milesians as embedded in an inchoate critical tradition. If Milesian society was not willing to accept scientific theories without criticism, we would expect anyone putting forward such theories to give some support for those theories. But if such a critical attitude were new, we could expect both criticism and argument to be without rigour. Furthermore, an unsystematic use of any and every kind of argument one could come up with might be expected.

Much of what I have said about the Milesians applies also to Xenophanes; yet he does not just continue their critical tradition, but refines it. He too seems to have rejected divine revelation (the interpretation of signs is explicitly criticised) and replaced this with both empirical evidence and *a priori* argument to support his theories. However, in Xenophanes we find a more conscious reflection on both methodology and epistemology. Specifically, he expresses scepticism about the possibility of knowing things beyond direct experience, and he is more rigorous in his empirical method. There is considerable controversy over the scope of his scepticism, and the reason for this scepticism. I consider a number of interpretations on these questions. It has been argued that his scepticism is general, because he was restating a poetic tradition of general scepticism. But this alleged tradition is unsupported since there is no such general scepticism in Homer. I conclude, then, that his scepticism is limited. It cannot be determined exactly what it is limited to, but there is every reason to assume that scientific and theological matters are within the scope of this scepticism. These go beyond direct experience. The reason for his scepticism, however, does not seem to be a simple restriction of knowledge to direct experience, rather he requires that for a belief to become knowledge it must be appropriately caused - that is, what causes one to believe is also what makes the belief true. This results in a degree of scepticism about direct experience. So we find that the Milesians expand on the possibility, found in the *Iliad*, of knowing by inference from observation; but Xenophanes reacts against this, eliminating the possibility of inferred knowledge, and even then requiring a more critical attitude to direct experience.

Xenophanes does not, however, abandon either scientific or theological inquiry as a result of his scepticism. He believes that it is possible to decide between different theories so as to determine which is closer to the truth. Consequently, progress is possible in these areas of inquiry. This capacity for progress seems to result mainly from a more rigorous empirical method. Principally, a theory is shown to be closer to the truth by being supported by a greater amount of evidence. For the purpose of accumulating
this evidence it would seem that both extensive travel and adopting the testimony of others are advocated.

_first deviation: Heraclitus: chapter 4_

As I have said, when we turn to Heraclitus we find a shift away from a concern with knowledge of scientific matters to a concern with wisdom. The pursuit of wisdom is not a pursuit of scientific matters in general, but the understanding of a basic metaphysical truth. Specifically, wisdom is understanding, as opposed to knowing, the λόγος – the eternal truth that the cosmos is interconnected, indeed held together, by opposition. This opposition is all pervasive: it permeates the cosmos at all levels from the elemental to the human. Indeed it is because this eternal truth relates to humanity that it is of such concern to Heraclitus. This shift of focus away from knowledge in Xenophanes to wisdom in Heraclitus is particularly significant in relation to Heraclitus’ criticisms of his predecessors – that is, his criticism of both testimony and ‘much learning’. These criticisms seem to relate most directly to Xenophanes. The principal problem with testimony and the amassing of many facts (much learning), especially the kind of facts that require extensive travel, may not be that they don’t achieve scientific theories closer to the truth, but that they don’t lead to wisdom.

In spite of the shift from knowledge to wisdom, the strong empirical tendencies of the _Iliad_ and the first philosophers are still apparent in Heraclitus. It seems that sensory perception, especially sight, is necessary for mortals to attain wisdom, but it is not sufficient. Most mortals lack a ‘riddle-solving’ ability that is necessary to interpret what we see so as to get below the surface and see what is really going on (as I have said, this idea first appears in the _Iliad_). The Homeric notion of the seer, then, seems to play a role in Heraclitus in that he appears to believe that he is able to ‘see’ far beyond the dulled perceptions of other mortals; and this ‘seercraft’ is achieved by this perceptive seeing. What is really going on is the all pervasive operation of the principle of opposition. This principle is essentially identifiable with the divine; hence the idea of divine revelation is revived, but transformed, by Heraclitus: the divine reveals itself by its own observable operation in the world. What the divine reveals in the world still requires interpretation, much like revelation by signs in the _Iliad_. And the process of interpretation is like solving a riddle in that the ‘solution’ is given in the riddle itself, but it is just not immediately apparent. As in the _Iliad_, certain Heraclitean fragments seem to say that only the divine is wise: mortals are completely devoid of wisdom. But, again as in the _Iliad_, on closer examination, the relationship between divine and mortal wisdom in Heraclitus turns out to be only one of degree.

Another necessary condition for Heraclitean wisdom seems to have no precedent: that is, self-searching. An introspective search of our own inner workings reveals the same thing as a careful examination of the world: the principle of opposition. This, presumably, clinches the all pervasiveness of this principle: it is not just inter-subjective, it is in fact _trans-subjective_ – the λόγος is common to all things and all souls alike.
The idea of divine revelation is found again in Parmenides: his rational argument was revealed by a goddess; but revelation serves a superficial role here – it is probably meant to do nothing more than reinforce the central importance of the rational argument. Indeed, Parmenides’ principle contribution to epistemology was that he gave this primacy to *a priori* reasoning: with Parmenides this was no longer just a minor *ad hoc* addition to empirical inquiry, as it was with the first philosophers. But it is easy to misconstrue the extent of his rationalism. The metaphysics of the first part of Parmenides’ poem, the Way of Truth, can be read as implying a very strong rationalism. That is, all truths about reality can be known by reason alone: he claims that true thoughts are implied by a necessary proposition; the ‘true thoughts’ that he then derives from this proposition, by reason alone, are attributed to ‘being’; this being seems, at first sight, to be physical reality as a whole; and the properties attributed to being could well give a *complete* picture of physical reality. In short, it seems that by rational inference from a necessary assumption, Parmenides derived a complete picture of, or all truths about, reality. But this picture lacks all the qualitative properties and variation of the phenomenal world. So this interpretation would also imply a strong scepticism about the senses: no knowledge could then be attained by the senses; the phenomenal world would simply not exist. But such epistemological consequences are not spelt out by Parmenides. These consequences are those that *should* follow from the above interpretation of the Way of Truth.

This strong scepticism, however, contradicts the implications of the second part of Parmenides’ poem, the Way of Opinion; and it is only in relation to this Way that Parmenides makes any explicitly epistemological claims. In this Way, Parmenides is only critical of scientific inquiry. He represents his philosophical predecessors as proceeding along the wrong road in this inquiry. Their principal error was to proceed without reason, when reason is the only appropriate guide. In the absence of reason certain empirical habits take over and carry them down the wrong road. These empirical habits result in undiscerning eyes and minds that allowed Parmenides’ predecessors to transfer the concept of change found in everyday sensory experience to the first principle, or material substratum, from which scientific theories are derived. Consequently, being based on a false principle, these theories are false. However, it is clear that this does *not* make scientific knowledge impossible. It means that such knowledge is only possible if one firstly accepts the rational conclusion that the substratum of reality does not change. Furthermore, since science is an explanation of empirical phenomena, if Parmenides considered scientific knowledge to be possible, he could not have denied the existence of the phenomenal world.

So the Way of Opinion appears to contradict the Way of Truth. But it also shows how this contradiction can be removed. Parmenidean being is not physical reality as a whole after all, but the substratum of physical reality; and it is only this that is described in the Way of Truth. So it is only knowledge of this substratum, or first principle, that is determined by reason *alone*, and that is unattainable by the senses. All other scientific
knowledge is probably then attained by the senses guided by reason. This rational determination of the substratum again revives the notion of the seer: Parmenides, as opposed to Heraclitus, 'sees' beyond the dulled perceptions of other mortals by means of *intellectual* perception.

Melissus, however, seems to have interpreted Parmenides' Way of Truth without regard for the implications of the Way of Opinion. Consequently, he develops a metaphysics that does have the strong sceptical consequences that the Way of Truth seems to suggest if the Way of Opinion is disregarded. That is, Melissus does conclude that the phenomenal world does not exist, and for essentially the same reason that Parmenides *seemed* to conclude this: for Melissus being is physical reality as a whole, not just the substratum of this reality. It is not clear whether Zeno follows Melissus in this. At least some of his paradoxes contradict the phenomenal world. But it is not clear whether he accepted this consequence of his paradoxes: the paradoxes may have been unashamedly sophistical. And Zeno makes no explicit epistemological claims; again we can at best hope to determine the epistemological consequences that *should* follow from his metaphysical paradoxes. In short, it was the Eleatics, although not Parmenides, and perhaps only Melissus, who extended epistemology, which had previously been restricted to scientific matters, to the realm of everyday experience.

The source of the Greek text for nearly all translations of the Presocratics is Hermann Diels, *Die Fragmente der Vorsokratiker*. Most deviations from this will be noted in footnotes. References to Diels are given in brackets after the primary reference. For all translations of Homer's *Iliad* the source of the Greek text is Leaf and Bayfield, *The Iliad of Homer*. The source for most comments on Greek grammar is Betts and Henry, *Teach Yourself Ancient Greek*. I have only given specific references on points of grammar where other sources were used. Similarly, the principal sources for comments on the possible English meanings of Greek words are Liddell and Scott, *An Intermediate Greek-English Lexicon* and Liddell, Scott and Jones, *A Greek-English Lexicon* 9th edn. I have seldom found it necessary to give specific references to these works. Where meanings are based on the occurrence of the word in particular Greek texts other than those referred to in these dictionaries, the specific primary references are given; but where meanings are based on the detailed philological research of others, I simply refer to the author of that research. When I mention Greek words I use the dictionary form where possible.

I use terms such as 'science', or 'scientific theories' to refer to theories that relate to the *subject matter* of science; no implication of any scientific *method* or approach is intended. I use the phrase 'the first philosophers' to refer to the Milesians plus Xenophanes; and the phrase 'the early Presocratics' to refer to all and only those philosophers dealt with in this thesis *viz* Thales to Zeno, less Pythagoras and early Pythagoreans. Some abbreviations used, whose sense may not be immediately apparent, are tr. for 'translation by', fr(s). for 'fragment(s)', ms(s). for 'manuscript(s)', and app. for 'apparatus'.
Chapter 1

OF GODS AND MORTALS: EPISTEMOLOGY IN THE ILIAD

There are two questions about Homer that have significant ramifications for the epistemology of early Presocratic philosophy: (i) what are the sources of knowledge in his work; and (ii) what is the relationship between divine and human knowledge? The first is relevant to all the philosophers we will examine; the second is relevant to certain features of the philosophy of Xenophanes and Heraclitus.

I have restricted myself to the Iliad (with some brief references to the Odyssey only when there seems to be an important difference between the two works) because I am inclined to the view that there were two Homers – that the writer of the Iliad was not the writer of the Odyssey – so I believe the two works should be treated separately; the principal passage (1) that I wish to discuss occurs in the Iliad, so I must deal with the Iliad. Having said this, I believe that the epistemological position that emerges from the Iliad is not merely the theory of the writer, but is largely representative of the sentiments of the time; and the position of the Odyssey does turn out to be predominantly the same.

The writer of the Iliad seems to make the contrasting claims that the gods know all, and mortals know nothing. I will, firstly, attempt to present the cases for and against the attribution of omniscience to the gods. What we find is that the Iliad is riddled with contradictions of divine omniscience, so the idea that the Iliad truly contains a belief in divine

---

1 My reasons for this view are essentially those of Finley (1979, pp. 31-3): the differences between the two books can best be accounted for by supposing different writers, while the similarities can be explained without supposing the same writer – by the common oral tradition that is the source of both poems. (However, Burn (1966, p. 73) suggests that the differences might be explained by the supposition that the writer of the Odyssey is the same man as of the Iliad “now passed from fiery youth into middle age” (cf. Hammond: 1987, p. 7).) Also see Rieu (1950, pp. xi-xii) for a single writer; Fränkel (1973, p. 7) for two; and Hammond (p. 7) for an appeal to scepticism.

2 This is because the Iliad is based on the oral tradition of the time. This means that there was effectively more than one contributor of the ideas of the Iliad. Certainly, the writer could have imposed his own individual beliefs and themes on his source material. But there is no reason to suppose this is the case in relation to matters epistemological since there is no sign of conscious reflection on the nature of knowledge or the like in the Iliad; it is just that some knowledge claims happen to be made in the story, and there are a few passing remarks on the extent of human and divine knowledge.

3 But see Lesher (1981, pp. 14-20) for some relevant differences.
omniscience simply cannot be sustained. When we turn to examine the
claim of general human ignorance, we do not find straightforward
contradictions of this. All the same, I will try to show that it is unlikely that
humanity was really believed to be completely ignorant. So we must
determine what the relationship between divine and human knowledge
really is. To this end, I demonstrate that both divine and human knowledge
are predominantly based in seeing. Furthermore, there is no reason to
suppose that divine sight is different from human sight since the gods are
anthropomorphic through and through. Consequently, the relationship
between divine and human knowledge is merely one of degree – the gods
know much more than mortals simply because they see much more. And
this fits in with the general nature of the gods: typically they have much
more of a given property than mortals, yet it is neither the case that mortals
are completely without this property nor that the gods have this property
absolutely.

Finally, although knowledge is primarily based in seeing, a person
does not have to see something for himself to know of it: knowledge can
result from the testimony of other people or the gods. I will examine the
nature of divine testimony. We will see that the means by which
information from the gods is attained can affect the reliability of that
information – principally, if the information is divulged to seers (and
presumably poets), this information tends to be portrayed as more reliable
than if it is divulged directly to other people. However, all divine
information is accepted as essentially reliable; and at least some divine
information is reliable enough to convert a true belief into knowledge.

THE GODS KNOW ALL, MORTALS KNOW NOTHING

In the Iliad there appear to be two contrasting epistemological claims
– that the gods know all, and that mortals know nothing:

Tell me now, you Muses with your homes on Olympos – for you are
goddesses, you know all and are present everywhere, but hearing
only the report we know nothing – who were the leaders and rulers
of the Danaans. I could neither recount nor name the mass of men,
not even if I had ten tongues and ten mouths, an unbreakable voice,
and a bronze heart in me, if the Olympian Muses, daughters of Aegis­
bearing Zeus, were not to recite[the names of] all who came to Ilios.
Yet I will recount the leaders of the ships and the ships in their
entirety (1:II.2.484-93).

This is the only passage in the Iliad where it is explicitly stated that the gods
know all. But there are other passages which lend a little support to the

4 οἶδα. For all references to knowledge claims in the Iliad (whether in translations or
otherwise), οἶδα is the epistemic term involved, unless otherwise stated.
5 The full sense of μνῆμενον recite that seems to be most appropriate here is remember
something aloud, which suggests that the Muses are retelling something from their past
experience. As we shall see, this counts for the reliability of their information.
supposition that the poet of the *Iliad* did indeed attribute omniscience to the gods:

Sun, who sees all things and hears all things (2: *Il*. 3.277; tH⁶).

Zeus, I suppose, knows, and the other immortal gods, which [Paris or Menelaos] has the end of death allotted to him (3: *Il*. 3.308-9).

With a heavy groan swift-footed Achilleus said [to Thetis]: ‘You know. What need for me to tell you all when you know it [the quarrel between Achilleus and Agamemnon]?’ (4: *Il*. 1.364-5; tH).

[Hera to Zeus:] Some mortals accomplish what they intend for other men, even though they are mortal and do not know as many schemes as us (5: *Il*. 18.362-3).

Now other companies were fighting at other gates – a hard task for me to tell of all this, as if I were a god: because all around the stone wall monstrous fire was rising, and the Argives were forced in their misery to fight now for their ships (6: *Il*. 12.175-9; tH).

Passage (2) could imply that at least the sun knows all if we accept the line that knowledge is identified with perception in Homer (cf. Hussey: 1990, pp. 12-3), or if all knowledge is at least ultimately based in perception (see below; and ch. 3). Even if we don’t accept this, (2) still implies that the sun knows a great deal. In (3) the only apparent reason for supposing that the immortal gods know is because they are gods. And if there is no special reason that they must know this particular piece of information, it is a reasonable hypothesis that they know it because they know everything. However, it soon becomes apparent that knowledge of the future is limited to some significant events – such as who will kill who – about significant men – the heroes, such as Paris and Menelaos (*Il*. 1.212-4; 8.469-77; 15.54-71; 18.94-6; 19.404-17; 19.420-2).⁷ This limited capacity of the gods to see the future (even among mortals) is most evident when Diomedes, a man, injures Aphrodite, a goddess, much to Aphrodite’s surprise (*Il*. 5.336-40) – she simply didn’t see it coming. (4) is similar to (3) in that there appears to be no special reason for Thetis to know about the quarrel between Agamemnon and Achilleus and what has followed, other than because she knows everything, or at least every significant thing about every significant man.⁸ (5), of course, only implies that the gods know more than people; while (6), strictly, only implies that the gods can take in more details of a complex and rapidly

⁶Translation by Hammond from Homer: 1987. All translations of the *Iliad* that are not my own are from this book, and I shall note that the translation is from there by this abbreviation.

⁷It should be noted that the chain of events predicted can be initiated by the gods themselves – i.e. the gods sometimes actively participate in bringing about what they predict (*Il*. 15.54-71) (see note 37).

⁸And it is ambiguous what πακ ἀλλ is the object of in (4): it could be the object of know, giving us ‘what need for me to tell you this when you know all’. But even with this translation, it probably still only means ‘... when you know all that has just happened’.
progressing state of affairs than people. The *Odyssey*, however, is more often explicit in its attribution of omniscience to the gods (4.379; 4.468; 12.190-2; 13.417; 20.75).

**CONTRADICTIONS OF ‘THE GODS KNOW ALL’**

So we find some corroboration for the thesis that the gods know all. However, there appears to be no suggestion of the thesis that people know nothing other than in (1). So ‘the gods know all’ appears to be slightly better supported than ‘mortals know nothing’. However, it soon becomes clear that ‘the gods know all’ cannot be taken in its strictly literal sense, but the case against ‘people know nothing’ is not as decisive. In the account of the gods throughout the *Iliad*, it is directly denied that certain gods know something, they are deceived, they doubt their own predictions, and so on.

We are told that the gods are ignorant of certain events that have just happened (II. 5.370-4; 13.521-5; 18.165-8; 18.183-6). But they can also be ignorant of circumstances that persist over a long period of time: for example, the gods are ignorant of Hephaistos’ nine years beneath the sea (II. 18.400-5). In other passages the gods only οἶω think or suspect but are not sure (eg. II. 1.426-7). In one passage Hera claims to “suspect that you have given [Thetis] your solemn word to bring honour to Achilles, and death to many by the Achaian ships” (II. 1.558-9; tH; my italics), and this is explicitly contrasted with knowledge – Zeus has just insisted that she should “not expect to know of all [his] thoughts” (II. 1.545-6; tH; my italics). Even though Hera only suspects, she is absolutely right, and shows some perception in getting it right. That this is not enough for knowledge will become significant below.

Another theme that is inconsistent with all the gods knowing everything is the claim that Zeus knows more than other gods (II. 13.354-5); and he also has greater wisdom or intelligence than everyone else, mortals and gods (II. 13.631-2). Of course, this by itself could leave Zeus, but Zeus alone, all knowing and with perfect wisdom. However, it soon becomes evident that this is not the case, most noticeably in the famous seduction of Zeus (II. 14.159-353): the whole seduction was a successful deception of Zeus by Hera (and it is not her only deception of Zeus (II. 19.100-19)).

There are a number of passages that, in addition to contradicting divine omniscience, also show that direct visual experience constitutes an important source of knowledge for the gods. The seduction of Zeus provides several examples. Firstly, the whole point of the seduction is to stop Zeus from seeing the battle between the Achaians and Trojans (mainly by putting him to sleep), so that he simply will not know what is going on. Secondly, Hera attempts to get Zeus to her bedroom because within it they will not be seen by the other gods, so they will not know what is going on (II. 14.329-40). Thirdly, instead of going to their bedroom, Zeus prefers to wrap them “in a golden cloud so thick that not even Helios [the sun] could see us through it, and his light has the sharpest sight of all” (II. 14.343-5; tH). This last example directly contradicts (2) (unless Zeus is mistaken). Yet the god who was said

9φήν.
to see all is still the god that can see most; so it would seem that παύξ all was used with exaggeration in (2). Fourthly, in this story sleep is able to disguise himself from Zeus: so the gods can disguise themselves from gods (even though, according to the smaller Aias, “it is easy to recognise the gods” (Il. 13.72; tH).

There are other examples of divine ignorance due to an obscured view. Ares does not learn of his (mortal) son’s death when it happens (Il. 13.521-5) because “he was sitting under the golden clouds on the height of Olympos” (Il. 13.523; tH). And, again, the only gods who were aware of Hephaistos’ nine years below the sea were those who were there with him beneath the sea, in viewing range; the rest could not see him for “the foam and roar of Ocean streaming endlessly on” (Il. 18.402-3; tH).

Furthermore, there are numerous formulae throughout the Iliad which imply that the gods do not always see, and if they don’t they will be ignorant of what is going on (thus unable to intervene). “If ... had not quickly seen” is quite common (it is usually applied to gods (eg. Il. 3.373-4; 5.311-2; 8.130-2; 20.288-9; tH; cf. 20.112), but it is applied to humans as well (Il. 8.90-1)). We are occasionally told that a god “was not keeping blind watch” (eg. Il. 13.10; 14.135; tH), suggesting that he could have missed something, but didn’t. And we are told that the gods would have done such and such “had they seen” (Il. 17.398-9). There is also “Zeus ... was waiting for his eyes to see” (Il. 15.599; tH).

We should, finally, note the limited nature of the gods’ knowledge of the future. We have already seen that a man was able to injure a god much to her surprise. The same point can be made of any ignorance of things present: if the gods are ignorant of something happening now, then they must have been unable to foresee it in the past. But there is some direct evidence that the ability of the gods to foresee the future, even about significant events and men, is limited: Hera expresses doubt about the most significant future event of the Trojan war (although not of the Iliad) – the fall of Troy (Il. 5.711-8); and before Achilleus returns to the fighting, only his conditional fate is predicted by Thetis – that is, a short life with glory if he stays in Troy or a long life without glory if he leaves (Il. 9.410-6).

So, in short, there is really only one passing statement of omniscience in the Iliad – other passages that could be read as implying omniscience need not be read this way. Against this are a multitude of passages that directly contradict divine omniscience. Hence (1) cannot be seriously read as including a claim of divine omniscience.

PROBLEMS WITH ‘MORTALS KNOW NOTHING’

There are no obvious contradictions of the sceptical claim that people know nothing, as there are with the claim that the gods know all. Homer does at times claim that one or another person knows something. But this, in itself, gets us nowhere on the issue of whether or not we should take the claim that mortals know nothing literally: it would be difficult, if not

---

10 νοεσσεν need not mean saw with his eyes – it could also mean perceived with his mind, realized, or the like (cf. Fritz: 1943, p. 87; and see note 13; and ch. 5).
impossible, for a sceptic to eliminate the use of ‘know’ from his non-
philosophical discourses (and the Iliad is not a philosophical work) even if
he did believe this was required by his scepticism. However, there are
certain knowledge claims put into the mouths of Homer’s characters such
that the claim is true and perceptive or justified. These sit uneasily with a
belief in complete human ignorance. The occasional attribution of
knowledge to people by the gods; the attribution of wisdom equal to the
gods to certain people; the lack of argument for such a non-commonsensical
position as scepticism; and some guilt by association with the claim of
divine omniscience (which we have seen is undoubtedly not to be taken in
its strictly literal sense) also count against taking ‘people know nothing’ as a
strictly literal claim.

We see men predicting the fates of other men: on their deaths
Patroklos and Hektor both predicted the fate of their killer (Il. 16.852-4;
22.358-60). Although there is no explicit knowledge claim (the men don’t say
‘I know...’) in these passages, what is predicted is correct and this hardly
seems possible by sheer chance, especially if we take these two predictions
together. In some passages a person correctly claims to know, and one is
inclined to see this correct claim as perceptive. We could hardly accuse
Hektor of wishful thinking when he makes his fateful claim that “one thing
I know well in my heart and in my mind: the day will come when sacred
Ilion shall be destroyed” (Il. 6.447-9; Η); cf. 22.59-65). Other knowledge claims
that are true (within the story) and perceptive, and hardly achievable by
sheer luck, are those made when a mortal recognises a god through the
god’s disguise (see below). These passages present mortals as capable of
rising above mere belief, based on sheer guess work or the like, and suggest
that when this happens knowledge is attained. But against this, we have
seen that Hera was not willing to claim that she knew even when she was
correct and perceptive.

Sometimes a claim to know may seem justified as well as true:

[Achilleus:] You do not deceive me, Priam. I have the wit to know that
one of the gods brought you to the fast ships of the Achaians. No
mortal man – even with all the strength of youth – would dare to
come here into the camp: and he could not get past the guards, or
easily push back the bolt across our gates (7: Il. 24.563-7; Η).

The reasoning is that the gods must have been involved because that is the
only explanation for some event (this reasoning can also be seen at Il. 5.183-

---

11One reason being that even if one believed that strictly speaking all knowledge claims are
false, it would still be thoroughly misleading to refuse to make knowledge claims outside
philosophical contexts. For example, if I deliberately left a door open, and was asked ‘did
you know the door was open’, it would be thoroughly misleading to answer ‘no, I didn’t know’
because of some philosophical scepticism (cf. Cook: 1983, pp. 16-9).
12However, it is possible that it was understood, so not made explicit, that a god was
involved in these predictions.
13γινώσκω. I deviate from Hammond’s translation here – he translates γινώσκω as see.
Lesher (1981, pp. 10-1) correctly points out that this word, and νοεω, whose use is essentially
the same (see below), are not identical to ‘know’, but mean something more like ‘recognise’ or
‘realise’. They do, however, entail knowledge.
Preconditions: Homer's *Iliad*

5; 15.290-3; 17.629-33; 14 and I would also suggest that it was involved in various other claims to know of the involvement of the gods (see below). That Homer thought such reasoning justified the conclusion of divine involvement is suggested when Aias says "even a complete fool could see" Zeus' involvement (ll. 17.629; TH); and when Hektor claims that "men can easily tell the strength that comes from Zeus" after Zeus has "broken the new-twisted string which [Teukros] tied on this morning to stand the number of arrows that would leap from it" (ll. 15.458-92; TH). As with correct and perceptive claims, these passages suggest that mortals can rise above mere belief to attain knowledge.

Another thing that does not fit neatly with a claim of complete human ignorance is a god attributing the capacity for knowledge to a mortal. Zeus claims that the gods cannot steal Hektor's body "without Achilleus knowing"15 (ll. 24.71-3). (It is important to note that the reason Achilleus would know is that "his mother [Thetis] is by him all the time" – that is, the source of knowledge is a goddess (see below).) And Hera suggests that "one of us [gods] could stand by Achilleus and give him great strength and not let him fail in courage, so that he can know he is loved by the greatest of the immortals" (ll. 20.120-3; TH; my italics).

Similar things can be said about the attribution of wisdom that is both correct and perceptive to people: Poulydamas' wisdom16 is shown to be sound by its direct contrast to Hektor's foolishness (ll. 18.249-66; 18.293-5). This does not sit well with human ignorance, especially when we are told that the wise man knows best17 (ll. 13.730-4). This suggests that wisdom18 entails knowledge, indeed the finest knowledge (but cf. Leaf: 1959, p. 326). Similarly, the fact that the capacity for wisdom is given to men by the gods (ll. 13.730-4) suggests that some men do have wisdom, hence knowledge.19 "The gods' equal in his wisdom"20 is a formula applied to men in the *Iliad* (eg. 7.366; 14.318; 17.477; TH; cf. 11.200): if this is taken literally, it too contradicts any denial of human wisdom, hence any denial of human knowledge (assuming that the gods are wise).

THE USE OF EPISTEMIC TERMS

So far I have argued that the claim ‘the gods know all’ is certainly not to be taken literally, and the claim ‘mortals know nothing’ is probably not to be taken literally. So if they are not to be taken literally, how are they to be taken? Before we can answer this question we need a better understanding

---

14And at 17.629-33 this reasoning again supports a knowledge claim; and again γιγνώσκω is the epistemic term.
15γνώσθη + genitive.
16μεκάνω.
17μάλιστα ... ἄνεγνω.
18νόον ... ἐκθάλνω literally a good mind.
19It is no so clear that the gods provided the capacity to acquire factual knowledge simpliciter, as opposed to providing individual items of knowledge. Hussey claims that this did happen (see below). But the only suggestion of this that I can find is Apollo’s gift of μαντουσίν the art of divination to Kalchas (ll. 1.72): the art of divination would then allow Kalchas to acquire certain facts about the future, the moods of the gods etc.
20θεόν μήστορ ἀτάλαντος more literally an adviser equal to the gods.
of the nature of knowledge in the *Iliad*. We have seen that divine knowledge is largely based in direct visual experience. It soon becomes apparent that direct visual experience is also the most common source of human knowledge. For example:

[Menelaos to Antilochos:] And you yourself already knew, I think, *beholding* this, that god heaps misery upon the Danaans (*8: Il. 17.687-8*).

In other passages what is known is merely what the knower presently sees in front of him (eg. *Il. 12.271-2; 14.469-75; 16.362*) (or has seen to be the case for some time (*Il. 24.662-4*)) (cf. Lesher: 1981, pp. 11-2).

Again, where someone expects something to happen in the future they *usually expect to know* it only when it does happen, when they directly experience it – for example, a man will know his fate in battle when it happens:

[Hektor:] I shall know whether Tydeus’ son, strong Diomedes, will drive me back from the ships to the wall, or whether I will cut him down with the bronze ... but I think he will lie there stabbed among the first to die... Oh, if only I could be deathless and ageless for all time ... as surely as this coming day brings disaster to the Argives (*9: Il. 8.532-41; tH; cf. 13.326-7*).

In this passage we see that Hektor does not claim to know before seeing what happens in spite of the strength of his conviction.22

A corollary of knowledge being (mainly) obtained through direct experience is that the more direct experience one has, hence the older one is, the greater one's knowledge (*Il. 19.218-9*). Interestingly, this relationship between age and knowledge applies equally to the gods (*Il. 13.354-5;23 21.439-40*). (And in the *Odyssey* there is also a connection between being much travelled and knowing much (*1.3-4; 4.267-9*) (cf. Lesher: 1981, p. 13).)

But often what is seen and known is below the surface. For example:

Now even a knowledgeable man could not have recognised godlike Sarpedon, as he was covered over from his head right to the tips of his feet with weapons and blood and dust (*10: Il. 16.638-40; tH*).

Being knowledgeable here appears to involve an ability to discern something in spite of it being visually obscured.24 This is also the case when the gods appear before mortals in disguise, as they often do, and the disguise is seen through, as it often is. This is typically not in spite of them being divine but because they are divine – their divine features shine through:

---

21In all of these passages, and in (*8*), the epistemic word used is *γνώσκω*.
22And rightly so since he is in fact wrong.
23Precisely the same formula is applied to the gods in this passage as is applied to mortals in *Il. 19.218-9:* “I was born older than you and have greater knowledge” (*tH*).
24Although, for this reason, *φρόδιον* knowledgeable might be better translated as *perceptive* in this context.
Helen “recognised\textsuperscript{25} the goddess’ [Aphrodite’s] beautiful neck and her lovely breasts and the eyes that flashed brightness” (Il. 3.396-8; tH); quick Ajax claims that “it is easy to recognise\textsuperscript{26} the gods” – he recognised Poseidon “from the form of his feet and legs from the back as he left us” (Il. 13.71-2; tH); and Aineias “recognised\textsuperscript{27} Apollo the far-shooter when he looked in his face” (Il. 17.333-4; tH). Of course, the gods’ disguises are not always seen through, but in this the gods seem to be in no better position than people: we have already seen that Zeus failed to see through sleep’s disguise. This is still knowledge gained by direct experience, but it does demonstrate that not everything given in direct experience is immediately apparent. This feature of empirical knowledge gains particular significance in the philosophy of Heraclitus (see ch. 4).

The words most commonly used to designate the recognition of something not immediately apparent are νοεῖ and γιγνώσκω. Fritz (1943, pp. 84-5) has made an exhaustive study of the use of νοεῖ in Homer, concluding that in the majority of its occurrences it designates the realization or recognition of the full meaning of a situation.\textsuperscript{28} But then, following Snell,\textsuperscript{29} he argues that νοεῖ designates “a further step in the recognition of the object” than γιγνώσκω (p. 88): γιγνώσκω only designates the recognition of an object as something definite – a human being, say, instead of just a brown patch; νοεῖ, however, would designate the recognition of this human being as an enemy, or this person as truly a god in disguise (pp. 88-9). But we have just seen counter-examples of this, where the recognition of a god is designated by γιγνώσκω. Lesher (1981, pp. 8-10; cf. 1983/2, pp. 160-2) gives further examples of both γιγνώσκω designating the recognition of the full significance of the situation and, conversely, νοεῖ designating mere object recognition.

Not all knowledge requires direct visual experience: sometimes what is known is inferred from what is seen. This is the case when someone knows a man’s character by his deeds (Il. 9.344-5; 10.249-50; 11.653-4) if a man’s character is seen as an underlying cause of his deeds. However, it could be that Homer construes a man’s character as just the sum of his deeds, in which case knowing a man’s character by his deeds would be just a special case of knowledge by direct experience.\textsuperscript{30} The Iliad tends to describe its characters only in terms of their actions. This could be because of an underlying belief that a man just is what he does, but it could be just the style in which such a story was told in Homer’s time. However, a man’s character can also be known by his observable physical states: Idomeneus claims to know a man’s courage this way – for example, “the coward’s skin changes from colour to colour” but “the brave man’s colour does not

\textsuperscript{25} νοεῖ.
\textsuperscript{26} γιγνώσκω.
\textsuperscript{27} γιγνώσκω.
\textsuperscript{28} All other uses designate an intention or a plan. These senses, Fritz argues, are derivative of its designation of the sudden realization of danger, which then requires a plan of escape and the intention to follow through with this plan (pp. 86-7).
\textsuperscript{29} Bruno Snell, “Die Ausdrücke für den Begriff des Wissens in der vorplatonischen Philosophie” in Philologische Untersuchungen 29 (1924), pp. 24ff.
\textsuperscript{30} Although, even if this is the case, there is still some inference as to future behaviour (most clearly at Il. 9.344-5).
change” (ll. 13.272-87; tH). So even if a man’s character is just the sum of his deeds, to know his character by his observed physical states is still an example of knowledge due to inference from observation. But we should note that what is inferred in this case is observable behaviour, not some unobservable cause of behaviour.

There are also certain passages where mortals claim to know of the involvement of the gods in their affairs (in (7); ll. 20.344-7; 23.787-8, for example, it is implied that some unspecified god was involved, but in most passages it is not just recognised that some god is involved, but just which god is involved – eg. 14.71-3; 16.114-21;31 20.443-50; 23.405-632). These knowledge claims presumably required inferences from what is observed since there is no indication that the god involved was seen.33 We have already seen that the reasoning, where it is spelled out, is that divine involvement is the only explanation for the given observation; and there is every reason to suppose that the same reasoning is implicit where no reasoning is spelled out.

So it would be a mistake to suppose that for Homer all knowledge was gained by direct experience. But it is also not the case that all one’s own knowledge is due to one’s own experience: testimony, at least when it has the sanction of being accepted by the general public, is also said to be knowledge, as the following passage shows most clearly:

[Aineias:] We both know each other’s birth, and we know each other’s parents, from hearing the tales that mortal men have long made famous – though I have never seen your parents with my eyes, nor you mine... But if you want to hear of it and learn the history of my family, it is something that many men know (11: ll. 20.203-14; tH).34

---

31γινόταικω.

32Often it seems unclear how the mortal was able to determine which god was involved: how did Patroklos recognise that it was Apollo at ll. 16.843-6; and how did Hektor recognise that it was Athene at ll. 22.297-97? In the latter case, perhaps it is because Athene is the god most often by Achilles’ side (ll. 20.94-8). That is, the same reasoning may be implicit here as is explicit when Aias exclaims that “I swear it was that goddess that fouled my feet, the one who is always at Odysseus’ side taking care of him like a mother” (ll. 23.782-3; tH). Alternatively, in both of these examples the god is bringing about the mortal’s death, so perhaps this is connected with a special insight mortals seem to attain just before their deaths – as the prediction that each of these men makes to his killer suggests (see above).

33However, at ll. 5.699-702, for example, we are told that the Achaians “learnt [πυθηνωμαι] that Ares was with the Trojans” (tH). Yet this seems to simply mean that the battle had turned against them, rather than something they inferred from the battle turning against them. Against this, it might be argued that πυθηνωμαι often means learn by hearsay or inquiry, not just learn; and this suggests that Ares’ involvement was something they either had to learn by means other than observing how the battle was going (by hearsay), or that it was indeed inferred from (presumably empirical) inquiry. But in the absence of any stated source of hearsay or account of any inquiries or inferences, such connotations do not seem to apply for this occurrence of πυθηνωμαι. So I am inclined to take this example of apparent knowledge of divine involvement as nothing more than an observation that the battle has turned (another example is (8)), but I do not accept that this is really all that is happening in all cases of inferring a god’s involvement.

34Other examples of publicly sanctioned testimony producing knowledge are when Diomedes, after recounting his family history, says: “You will have heard of all this, if indeed I speak
Also, in the Odyssey the testimony of an eyewitness is compared favourably to seeing for oneself (8.487-92); and hearsay is even compared favourably to the testimony of an eyewitness (3.91-5; 4.322-5). However, in the Odyssey there is no sign of the requirement of general public acceptance of the testimony.\textsuperscript{35}

*a brief note on practical knowledge and wisdom*

So far I have only been concerned with the nature of factual knowledge. But for the purposes of completeness, and for the sake of latter chapters (esp. ch. 4), some brief remarks on wisdom and practical knowledge are warranted.

Knowledge is very often practical in the Iliad (eg. 11.740-1; 15.410-2; 20.200-2; 20.431-3), which is only to be expected given that this poem is primarily a poem of doings and happenings. The most remarked upon practical knowledge is, not surprisingly, knowledge of levelling war (Il. 7.237-41; 7.719; 9.440-1; 13.222-3).\textsuperscript{36}

Wisdom, like knowledge, is attributed to people, not just the gods (Priam and a herald are said to have προφητεία ... μεταφέρει ἐκείνης “much counsel “in their minds” (Il. 24.674); and Hippos and Priam are said to be δόξης ἐν καλλίτευσιν “wise mind, skilful” (Il. 11.197; 11.450)). And wisdom seems to be essentially practical. In the passages where this practical skill is most clearly meant πεπροφητεύεται is the preferred word (Il. 7.276-82; 7.347-51), although νόμος and φρονέω are also used in much the same way (Il. 23.303-14)). The only occurrence of σοφία in Homer (Il. 15.412) (Kerferd: 1976, p. 24) also has this practical import.

TRANSMISSION OF KNOWLEDGE FROM THE GODS TO MORTALS

A final source of human knowledge that we should examine is testimony from the gods. The role of the gods as a generally reliable source of information on all matters is prevalent throughout the Iliad.

*directly*

In some passages we find the gods informing people of what has just happened, presumably, because they have just seen it (Il. 2.786-8; 3.121-3; 11.714-6; 17.73-81). In other passages the gods are simply informing men of Zeus' intent (Il. 11.199-209; 14.135-46; 22.214-21;\textsuperscript{37} 24.159-75). But not

\textsuperscript{35}But I do not believe that this represents a difference between the two works. I think that general public acceptance is required when the testimony relates back to the distant past, as is the case with the examples from the Iliad ((11); and see above note), but not when it relates to the present or recent past (within the story), as is the case with the examples from the Odyssey.

\textsuperscript{36}In all of these examples the epistemic term is οἴδα, except 13.222-3, where it is ἐπιστήμων.

\textsuperscript{37}In this passage Zeus' intent conforms with Hektor’s known fate.
everything that the gods pass on to people is just a report of something they 
have seen or been told — as we shall see, the gods give predictions to 
mortals.

This information may be passed on by a disguised or undisguised god. 
Contrary to what we would expect, it seems that, generally, when the gods 
disguise themselves there is no particular reason for this (Il. 2.786-92; 3.121-
3; 14.135-8; 17.70-4), but when they are undisguised there is a reason for it.38 
Athene could not have raised the army if she were not known to be a god 
(Il. 11.714-21); she appears undisguised when she wishes Achilleus to know 
that the gods are on his side now (Il. 22.214-21); and Iris could not have 
convinced Hektor that she did know of Zeus’ plans if he did not know her 
to be a god (Il. 11.195-209). In another passage Iris appears undisguised (Il. 
24.159-60) to assure Priam that he will not be harmed if he goes to the 
Achaian ships, upon which Priam states that

if it were a mortal man that told me this, one of the seers who divine 
from sacrifice, or the priests, we would rather call it false and reject it. 
But I have heard the god’s voice with my own ears and looked at her 
face to face (12: Il. 24.220-4; tH).

But there follows a hint of doubt when he says “if it is my fate to die beside 
the ships of the bronze-clad Achaians, then I welcome it” (Il. 24.224-26; tH). 
So appearing undisguised is often for the purpose of convincing people of 
what the gods wish to tell them, and this helps convince them because of a 
general faith in the veracity of information from the gods.

As with Priam, Aineias believes what he is told because he recognises 
that he is being told by a god (Il. 17.333-4). However, this time what he is told 
appears to be untrue.39 Apollo also deceives Aineias into attacking 
Achilleus (Il. 20.104-9), but here Apollo is disguised so Aineias does not 
know that this constitutes an exception to the reliability of the gods (Il. 20.81-
2).40 So the gods lie, and people accept that they lie (Il. 2.111-6; 8.236-7; 9.18-
23; 12.164-6). Such acceptance that the gods lie could constitute the basis of a 
sceptical argument: (i) it is known that the gods lie; (ii) there is no way of 
determining when the gods lie and when they tell the truth (at the time); 
(iii) hence, there is no guarantee that anything they tell mortals is true; (iv) 
without a guarantee of truth there is no knowledge; (v) therefore, mortals

38There are exceptions to this general rule. Sometimes there is a reason for the disguise: 
Apollo disguises himself as Agenor so that Achilleus (who is trying to kill Agenor) will 
chase after him instead of slaughtering Trojans (Il. 21.595-607); and Athene disguises herself 
as Hektor’s brother, Dēphobos, to persuade Hektor to his death (Il. 22.226-47). Equally, a 
god can appear undisguised for no obvious reason, such as when Thetis appears to her son, 
Achilleus (eg. Il. 1.357-63; 18.70-7; 24.120-9). But Thetis may simply want her son to know 
that it is indeed his mother who has come to see him.

39He is told that Zeus still wills victory for the Trojans. But the fighting over the body of 
Patroklos (which this passage occurs in the middle of) continues to be even for a while, then, 
with the consequent return of Achilleus, it turns to the Achaian advantage.

40Apollo tells Aineias that he can defeat Achilleus because his divine parentage is superior. 
But there is no relationship between the military prowess of the heroes and the prowess of 
any divine parents: Achilleus is more powerful than Aineias, whose grandfather was Zeus, 
and Sarpedon also, whose father was Zeus. (In spite of this, Achilleus too believes in this 
relationship (Il. 21.184-5).)
cannot gain knowledge from what they are told by the gods (cf. Hussey: 1990, pp. 14-6). But there is no explicit statement of such an argument in the \textit{Iliad}, and the occurrence of statements that the gods are known liars, by itself, does not justify superimposing such an argument on Homer (but see below).

\textit{to seers}

The reliability of seers as mediums for knowledge given to people by the gods is established at the very beginning of the \textit{Iliad} when Kalchas gives the reason why Apollo had beset the Achaians with a plague: he gives this \textit{εὐ εἰδως knowing correctly or well} (Il. 1.384-5). This attribution of \textit{εὐ εἰδως} appears in every way to be sincere.\footnote{We should note here that his capacity to know “what is, will be, and has been” (Il. 1.70) appears to put Kalchas on a par with the gods in terms of the \textit{kinds} of knowledge available to him, but, presumably, not in terms of the quantity of knowledge.} Another seer was Poly\-idos:

Euchenor, son of the seer Poly\-idos ... had boarded his ship in full knowledge\footnote{\textit{Εὐ ς εἰδος}} that this was his doom and destruction – many times the old man, the noble Poly\-idos, had told him that he would die of a painful sickness in his house, or join the Achaians’ fleet and be brought down by the Trojans (13: Il. 13.663-8; tH; my italics).

The only thing that seems to justify the knowledge claim here is the fact that Poly\-idos was a seer. Kalchas and other seers are persistently correct in their claims as seers, and, as far as I am aware, there is not a single case of false information being given by a seer in the \textit{Iliad}. So it seems that seers, and probably poets too, have a special relationship with the gods such that the gods do not lie to them as they sometimes do to other mortals. The one passage that seems at odds with this conclusion is (12), where Priam says that if what he has just been told by Iris were told to him by a seer or priest he “would rather ... reject it”; he only accepts it because a god told him directly.

Hussey (1990, pp. 16-7; cf. Cornford: 1970, p. 37; 1952, pp. 102-3) argues that the greater reliability of seers is not due to the gods simply refraining from lying to them, but to Apollo’s gift of second sight (Il. 1.72). This, he claims, is literally a kind of seeing “which can be exercised directly, without further reference to Apollo”. Such second sight is strongly implied in the \textit{Odyssey} (20.345-57) where the prophet Theoclymenos’ vision of the suitors’ deaths is described. And in the \textit{Iliad} Poulydamas was wise since he was “the only man among them with \textit{eyes} for both past and future” (18.249-50; tH; my italics). But this may well be meant figuratively. Furthermore, a quite different story is given of Helenos. Helenos is another successful seer (Il. 6.76; 7.52), who predicted Hektor’s fate because he

\begin{quote}
had understood [the gods’] plan in his mind... [that is, he] heard the talk of the everliving gods, and that is what they say (14: Il. 7.44-53; tH).
\end{quote}
And besides the direct textual evidence, such second sight would seem to give mortals a power that the gods lack (see below).\textsuperscript{43} So the claim that seers have a special sense of their own, as opposed to simply being told things by the gods, is poorly supported in the \textit{Iliad}, but has stronger support in the \textit{Odyssey}.

\textit{through signs}

A number of signs given by the gods, or, more precisely, their interpretations, are both correct and readily accepted by men (\textit{Il.} 8.169-76; 8.247-52; 10.274-7; 11.52-5; 11.317-9; 13.821-3; 24.310-5). Others are again readily accepted, but their truth is not clearly spelt out (\textit{Il.} 4.381; 6.183\textsuperscript{44}). In spite of this ready acceptance of signs from the gods, and their invariable correctness, on one occasion some doubt is expressed, by Odysseus, about the surety of certain signs interpreted by Kalchas (\textit{Il.} 2.252-3). Even though Odysseus accepts the possibility of error, he is still convinced that the omens were right (\textit{Il.} 2.350-1). His advice is to follow the guidance of the sign until it in fact turns out true or false, and this receives general acceptance (\textit{Il.} 2.299-300; 2.346-9). So there is still faith in the omens even when the possibility of error is admitted.\textsuperscript{45}

So it would seem that if the gods wish to deceive people, they at least have the decency to be direct about it. But the general reliability of signs is, I presume, not because of their indirectness. I can only assume that it is because it was traditionally the job of seers to interpret signs – that is, signs are reliable because of their association with the ever reliable seers. However, this connection between seers and the interpretation of signs is not strong in the \textit{Iliad} – it is often some hero (\textit{Il.} 8.169-76; 10.274-7; 11.52-5) or even the Achaians and/or the Trojans as a whole that interpret the signs (\textit{Il.} 8.247-52; 13.821-3).

\textit{divine testimony as a source of knowledge}

Now, we should consider the degree of reliability provided by divine information compared to that provided by one’s own direct experience. Given that the reliability of divine information is largely dependent on the direct experience of the gods, we would expect that one’s own experience would be accepted over divine revelation just as much as it would be accepted over an eyewitness account by other mortals. And this expectation is confirmed by Achilleus’ belief that Thetis had lied to him because the evidence of his own eyes seems to contradict what she had said – it seems

\textsuperscript{43}However, this may be because the power of second sight (at least in relation to the present) would be redundant for the gods since they can travel to a place as quickly as mortals can think of that place (\textit{Il.} 15.78-83).

\textsuperscript{44}Although in this passage a task (killing the Chimaira) was successfully achieved "following the signs from the gods". This success suggests that the signs were correct.

\textsuperscript{45}The signs that result in general acceptance are interpreted as giving fairly specific information. Occasionally signs are ambiguous (\textit{Il.} 4.75-84) or vague (\textit{Il.} 17.547-50; 22.29-30). Surety is still expressed for \textit{one or the other} of the possible interpretations of the ambiguous sign, but there is no obvious general acceptance of the vague signs.
certain that the river Xanthos will drown him in its waters, whereas Thetis had said he would be killed by Apollo under the Trojan wall (Il. 21.263-78).

But, in spite of its lesser status compared to direct experience, is the general reliability of information from the gods sufficient to convert a correct belief in that information into knowledge? It seems that it is. Kalchas, through his seer craft, is said to know why Apollo had beset the Achaians with a plague. We are told in (13) that information gained from a seer constitutes knowledge. And Achilleus knows “that it is his fated time to die here [at Troy]” (Il. 19.420-2; tH) because, having re-entered the fighting, Thetis was able to assure him that “directly after Hektor dies your own doom is certain” (Il. 18.94-6; tH). We also saw that Achilleus would know if Hektor’s body were stolen because Thetis would tell him. A similar scenario is found in the following:

But godlike Achilleus did not yet know that Patroklos was dead ... his mother had not told him of the disaster that had now happened, the death of his most loved companion (15: Il. 17.401-11; tH).47

Also it does appear to be the divine source of the predictions above that distinguish these from the case where something is expected to happen in the future (9). In the latter case the claim is that one will know when it happens, not that one knows now.

Hussey (1990, p. 16), however, argues that knowledge attained from a divine source also requires verifiability - the reliability of the divine source is not enough. In the case of Achilleus and Euchenor’s (13) knowledge of the future, these claims are verified in the future by the occurrence of the prophesied event. Kalchas’ knowledge of Apollo’s motives is presumably verified when the plague stops as a result of following Kalchas’ instructions on how to appease Apollo. And the examples of knowledge that Achilleus could have gained from divine revelation are also clearly verifiable. But why suppose that this verifiability is required for knowledge? It cannot be argued that it would be too great a coincidence that all these knowledge claims are verifiable: as a general rule, information given to a person within the story is given because it is relevant to that person - what they are told has happened or will happen will impact on them, and when it does it cannot help but be verified.

But Hussey’s only apparent reason for requiring this additional condition is that he interprets (1) as denying that the information of the Muses constitutes knowledge (pp. 14-6). But is this right? It is clearly stated that the κλέος report in (1) is insufficient for knowledge. Hussey obviously assumes that κλέος refers to ‘the report of the Muses that Homer is about to

46 ἐποίησε.

47 We should note that it is not necessary in any of these examples for the testimony to be sanctioned by public acceptance for that testimony to constitute knowledge. This could be because the testimony is divine or because none of this testimony is about the distant past (see note 35). If the latter suggestion is correct, then testimony about the future does not require public acceptance, along with testimony about the present and the recent past. But one would expect testimony about the future to require some additional support before it could constitute knowledge. This suggests that the fact that the testimony is divine does replace the requirement of public acceptance.
recount'. But the context suggests that it refers to 'the report of mortals that Homer has relied on up until calling upon the Muses': that people are ignorant seems to be the reason for calling upon the Muses, suggesting that this ignorance is the state of affairs to be changed by the aid of the Muses. That is, (1) most likely means that people are only ignorant prior to calling on the Muses. If this interpretation is correct, then (1) constitutes a counter-example to Hussey (a divine source leads to knowledge, yet what is known is unverifiable). Another counter-example (of the more general principle that verifiability is a necessary condition of knowledge (p. 16)) seems to be (11), contrary to Hussey's use of it as an example of the verifiability condition, since here what is claimed to be known – the history of Aineias' family – seems to extend back into the distant past – too far back for anyone living to have witnessed what he describes.48

section conclusion

We have seen that information from the gods, when it is known to be such, is generally accepted, whether it be given directly or via a seer or signs. And in the main this acceptance corresponds to a general reliability of such information. However, the gods do lie and people are aware of this. These deceptions seem to be associated with the gods speaking directly to laymen (or through dreams (Il. 2.2-13)); seers and signs appear to be far more reliable. It has been suggested that this reliability of seers is due to a kind of second sight. This is, at least, not always the case in the Iliad, however, and here it seems more likely that the reliability of seers is due to a special relationship with the gods such that the gods do not lie to them. This special relationship probably applies to poets too, making the reports of the Muses equally reliable.

The reliability of divine revelation seems to be sufficient to make it a source of knowledge. However, we should, finally, note that all the revelations explicitly claimed to provide knowledge are either revealed to seers or to Achilleus by Thetis. The mother-son relationship could be a special case of a relationship such that the god does not lie to the mortal, putting Achilleus on a par with seers when the divine source is his mum. So it is still tenable that the possibility of deception must be removed from divine revelations, one way or another, before they can constitute knowledge.

48Hussey (1990, p. 15 n. 12) might counter that the distant past is tied in with Homer's sense of remoteness from the heroic age – that is, it is only when one goes back as far as a previous age that one reaches the distant past. But this is something of a red herring. Aineias goes back too many generations for anyone still living to give a first hand account of much of what he recounts. This should make it unverifiable. But what if we suppose, for arguments sake, that Aineias' account is verifiable? Then asking a large number of people, who have only heard of Aineias' lineage, about this lineage is enough to verify the account. But if this is enough for verification, then asking other gods, who where there, about the story of Troy must also be enough to verify the Muses' account. And it is possible to ask other gods. Hence if Aineias' account is verifiable, then the Muses' account is also verifiable. So the Muses' account should constitute knowledge, which eliminates the only apparent reason Hussey required some additional element over and above general reliability, viz verifiably, to convert true and believed divine information into knowledge.
INTERACTION BETWEEN THE GODS AND THE PHENOMENAL WORLD

So, having reviewed the sources of knowledge in the *Iliad*, it does appear that sight is the ultimate source of most human knowledge and most divine knowledge alike. This would seem to mean that divine and human knowledge are largely of the same kind. But this only follows if divine and human sight are the same. That they are is already suggested by the fact that divine vision can be obscured by objects in this world. And the conclusion that divine and human sight are of the same kind is greatly reinforced when we see that the anthropomorphism of the gods is complete—they are not essentially spiritual beings with nothing more than the superficial form of human beings, or the like, they are essentially just bigger versions of ourselves. That the gods that have human form are completely anthropomorphic is demonstrated by the following: (i) they are located in this phenomenal world that we mortals inhabit and (ii) they interact with this world in the same way as us.

The location of the gods in this world is a pervasive theme of the *Iliad*. There is no true spiritual realm: Olympos is just a high mountain; Hades is literally beneath the earth (*Il.* 20.61-6); and the other abodes of the gods are scattered around the earth and under the sea (*Il.* 24.77-84; 24.615-6; cf. 15.184-93). And not only do gods live in this world, sometimes they live among people (*Il.* 1.396; 16.574; 21.441-5), and people live among the gods (*Il.* 20.232-5). And there are numerous examples of the gods moving about this world (eg. *Il.* 8.45-50; 15.218-9; 18.65-70; 18.616-7).

Not only are they located in this world, they usually interact with it just as we mortals do. When the gods fight each other they can quite effectively use objects of this world (*Il.* 5.840-57; 21.403-7). There is also the wall of Troy made by Poseidon (*Il.* 21.446-7). Furthermore, their involvement in the affairs of people is usually hands on. They carry men out of the battle (*Il.* 3.373-4; 5.23); lift them from the ground (*Il.* 7.271-2); knock weapons from their course (*Il.* 4.128-33; 20.438-41); and the like (*Il.* 15.254-61; 18.203-18; 23.382-92; 24.440-2; 24.679-91). And the gods also join in the fight with men (*Il.* 16.698-709) and kill them by their own hand (*Il.* 5.846-8; 6.203; 6.428; 24.602-7; cf. 16.788-806). But perhaps the most pertinent interaction between the gods and humanity is that of interbreeding: many of the characters of the *Iliad* were the offspring of a human and a god (eg. 1.413-4; 2.820; 3.418; 9.82; 11.750-1; 13.206-7; 15.67; 16.173-86).49

But, although the textual evidence for the this worldliness of the gods is abundant, it does presuppose that we should take Homer literally in his portrayal of the gods. Is this presupposition correct? Apollo is said to determine the general fortune of the Achaians by attacking them with arrows (*Il.* 1.48-52; 1.94; cf. 1.380-3). But his actions are also described as a plague (*Il.* 1.9-10; 1.456). Do the arrows literally enter into the phenomenal world? And if not, does this mean that the whole picture of the this worldliness of the gods is due to too literal a reading of Homer? I think

49 Fritz (1943, p. 91 n. 90) points out that Zeus tends not to get involved in the world of mortals in this hands on way. (There is, however, the frequent and significant exception of breeding with human women.) And this could require him (and later the other gods too), if he is to know what is going on among mortals, to see or be aware of things that are not present.
Apollo's arrows are fairly clearly metaphors for the plague. And there are other accounts of the gods that do not seem to be meant literally (eg. Il. 9.502-12; 19.86-94)\(^{50}\) (cf. Taplin: 1991, pp. 77-8). But it would be wrong to infer from these occasional metaphorical accounts that the entire account of the gods is not to be taken literally (cf. Lattimore: 1951, p. 54). The bitterness of the attacks on Homer's representation of the gods by Xenophanes (24), amongst others (cf. Finley: 1979, pp. 23-5), would not make sense if his theology were not believed to be an essentially literal account of the gods. And, given that we are dealing with a work of literature, we should be careful not to make too much of individual passages, rather than the overall import of the work. So accepting that Apollo's arrows were a metaphor for the plague does not require us to accept that all hands on interventions by the gods are not to be taken literally.

The this worldliness of the gods has implications for a number of points. Firstly, as said, this worldliness anchors the anthropomorphism of the gods – they are essentially just bigger versions of ourselves. Hence there is every reason to suppose that the gods perceive in the same way as mortals. Secondly, this complete anthropomorphism is important in relation to the greater knowledge of the gods in all matters. The gods do know more than us. But this seems to be only because they live longer and can travel faster (Il. 15.78-83), and so they get to see more. Furthermore, their vision is often represented as having a greater range (eg. (2); (6); Il. 5.265; 8.206; 8.442; 9.686; 13.3-6; 13.732; 15.152; 15.724) (although this is probably not due to any keener sense of vision on the part of the gods, but to their ability to gain the high peaks from where a wide ranging view is possible (eg. Il. 13.10-3))\(^{51}\). That is, the gods are only more knowledgeable because they see more, and hear of more things; not because of any special faculty or insight exclusive to them. Even the ability to predict significant future events, as we have seen, does not appear to be exclusive to the gods (cf. Hussey: 1990, p. 13). Thirdly, when people see through a god's disguise, this does not constitute seeing into a realm beyond our own – that is, it is essentially the same as seeing through a person's disguise (the only real difference is that it is often the divineness of the god's features that gives away a god's disguise, so it is, presumably, easier to see through their disguises)\(^{52}\). Fourthly, a similar point can be made about people inferring divine involvement from empirical observations. We have seen that this involvement is often hands on, but it is usually either done while disguised or, similarly, covered in mist (eg. Il. 5.127-8; 15.307-8). So this is just a case of inferring from observed effects to some unobserved, but observable, cause that is as much a part of the phenomenal world as the effects.

\(^{50}\)And see note 33.

\(^{51}\)Except Helios, but his vision is still probably the most extensive simply because of his greater height above the earth.

\(^{52}\)For example, Odysseus' nurse sees through Odysseus' disguise by noticing a distinguishing feature (a scar) of his (Od. 19.392-4). This is much the same as when mortals see through the disguises of the gods by noticing some feature that is distinctly godlike.
Preconditions: Homer’s Iliad

SO WHAT DOES ‘THE GODS KNOW ALL, MORTALS KNOW NOTHING’ MEAN?

So the general relationship between human and divine knowledge is clearly that the gods are much more knowledgeable than people; but people are no more completely ignorant than the gods are omniscient. We should emphasise that the difference is purely quantitative. This might seem to follow from what I have just said: (i) divine and human sight are the same; and (ii) the only kind of knowledge apparently not based in sight, viz knowledge of the future, still seems to be available to mortals directly. But this still allows the possibility that the gods can get to see things that mortals can’t, such as the distant past. However, this possible relative limitation to human knowledge, or any other, is overcome once we accept that the gods can pass on what they know to mortals, and that at least sometimes such testimony constitutes a source of human knowledge.

So just how are we now to take the claim that the gods know all and mortals nothing in (1)? There seem to be three serious possibilities.

(i) The statement is not a factual claim at all, but merely an expression of awe at the superiority of the gods.
(ii) The claim is exaggerated. It should be taken to mean something like ‘when compared to one another, the gods know so much more than people that it is as if the gods know all and people know nothing’, or, perhaps, more simply ‘the gods know almost everything, and people virtually nothing’.
(iii) The claim is elliptical: it should be taken to mean ‘the gods know all and people know nothing about the distant past’.

Of course, the last two possibilities are not mutually exclusive, and even if it is a factual claim, but exaggerated, awe of the gods may still be the reason for the exaggeration. I believe that the most plausible alternative is principally (iii). But there is also some exaggeration in the first part, and an exception clause in the second part. This gives us:

The gods know virtually everything about the distant past, but people know nothing about the distant past, except what the gods tell them.

The exception clause clearly follows from what I have just said. The restriction to the distant past is suggested, firstly, by the immediate context of (1). In this passage Homer is calling on the Muses to give him detailed information about the distant past. Every other time Homer calls on the Muses it is for an account of some significant event in the distant past. In the opening passage of the Iliad he is asking the Muses to tell him the whole of the Iliad (1.1-8), and throughout the Iliad he calls on the Muses for more specific details (2.761-2; 11.218-21; 14.508-10; 16.112-3; possibly also 11.299-301; 16.692-3). And, in contrast, when Homer doesn’t call on the Muses he says: “But what man’s mind could tell the names of all the others who came after this and roused the Achaian fight” (Il. 17.260-1; Th)?

(1) also says a little more than ‘the gods know all, people know nothing’ – namely, the gods “know all and are present everywhere”, while people “hearing only the report ... know nothing”. That is, the reason the
gods know is because they were there, Homer wasn't (cf. Hussey: 1990, p. 12; Lesher: 1981, p. 12).\(^5\) This is the only reason given for our ignorance, and it simply isn't a reason for ignorance of all things; it is, however, a reason for ignorance of all things in the distant past (when we are left to our own devices). Finally, when we look back over the accounts of the gods throughout Homer we only ever find evidence of their less than complete knowledge of the future and the present, never the distant past.\(^5\) This does suggest an omniscience about the distant past, but, of course, it also means that any such omniscience would be limited to the past.

So the gods are not omniscient simpliciter, but are they not at least omniscient about the distant past? Must we qualify even this area of their knowledge? It seems that we must. As we have seen, the gods are very much a part of this world and consequently, although they see more than mortals, they are still limited to being in one place at one time, from where they can only see, hence know, so much. However, each god, presumably, does not have to see everything for himself: the reports of other gods can add to his sum of knowledge.\(^5\) Hence, given sufficient time, each god's knowledge could be virtually equal to the sum of knowledge of all the gods eventually Hera could tell Zeus everything she knows, and Athene, and Aphrodite, etc. But for the gods to know everything about the distant past it would still have to be the case that at every moment each event was witnessed by at least one god. And, although this is possible, it is implausible, especially since the gods tend to sleep at roughly the same time (Il. 24.677-8).

THE POWER RELATION BETWEEN GODS AND MORTALS

So (1) does not express the general contrast between divine and mortal knowledge – that the gods are far more knowledgeable than people; but people are no more completely ignorant than the gods are omniscient. This general contrast in knowledge fits in with a far more general theme in Greek religion. The gods tend to be greater than people in most respects – mainly in their power (due to their power over nature (Il. 8.133-44), but more commonly simply due to greater physical strength (eg. Il. 20.364-8; 21.263-4; 22.14-20)), but in other things too (Il. 9.497-8; 10.556-7; 19.21-2). But they are not omnipotent (Il. 18.426-7), and even their immortality seems to

\(^5\)We should note, however, that in Hesiod's Theogony the first part of the account is of a time before the Olympian gods, not just the Muses, were alive. So if we suppose the same thing essentially applies in Hesiod, the Muses must rely on the testimony of earlier gods for the earliest part of their account. And the account does begin abruptly with the birth of the first god: "Chaos was first born and after her came Gaia" (116; tr. Athanassakis: 1983).

\(^5\)There is the ignorance of Hephaistos' time beneath the sea (see above) for a period of nine years. But, on his return to Olympos, the gods probably learnt where he had been. So this constitutes ignorance of the past, but not ignorance of the distant past.

If human ignorance of all of the distant past is to be taken literally, then the distant past must be at least as long ago as the lifetime of the oldest living person at any given time. But even this is probably not far enough back. Publicly sanctioned human testimony seems to provide a source of knowledge about the past even further back than this (see notes 34 and 35).

\(^5\)See note 53.
be merely a contingent fact. So for most properties, say property $\phi$, it seems to be that ‘the gods have far more $\phi$ than people’, but it is neither true that ‘people are without $\phi$’ nor that ‘the gods have absolute $\phi$’. It might almost be said that ‘the gods are greater than people in most (if not all) respects’ defines the gods, given their complete anthropomorphism. The degree of difference is often portrayed as significant, as when Apollo says: “Think, son of Tydeus, and shrink back! Never think yourself god’s equal – since there can be no likeness ever between the make of immortal gods and of men who walk on the ground” (Il. 5.440-2; tH; my italics; cf. 16.706-9). But in fact the contrast is a little messier than this since sometimes a hero will defeat a god, contradicting the strict claim that all gods are always more powerful than men: we have already seen that Diomedes injured Aphrodite (ll. 5.336-40), and there are other accounts of men besting the gods (ll. 5.383-97; 6.130-7).

CONCLUSION

So, in conclusion, we have seen that the gods of the Iliad are not omniscient and mortals are probably not completely ignorant: the relationship between divine and human knowledge is on a par with the relationship between divine and human properties generally – the gods are much more knowledgeable than mortals. Knowledge for both gods and mortals is principally derived from seeing, so that gods know much more simply because they see much more. But one’s own direct perception is not the only source of one’s own knowledge. What is known may itself be unobserved, but inferred from observations. Also what is known can result from the testimony of other people and of the gods. Testimony from other gods is presumably also a source of knowledge for the gods too, and it is this that allows them to accumulate something close to omniscience about the distant past.

This examination of Homer provides the best picture we can obtain of the Greek sentiments on epistemological matters at the birth of philosophy. But when we turn to examine the first philosophers, the picture becomes cloudier because of the fragmentary nature of the evidence. However, it does seem that from the beginning there is a significant shift in

---

56 The gods sometimes seem to claim that they could have died if such and such had not happened (ll. 5.385-8; 15.115-8; possibly 18.395-8). However, when Ares’ said he might have lain among the corpses (ll. 15.115-8) he did not necessarily mean that he might have lain dead among the corpses (cf. Nussbaum: 1972/2, pp. 164-5). Furthermore, it is not clear that we are meant to take Ares too literally here. But the claim that Ares would have perished had he not been released from imprisonment in a bronze jar (ll. 5.385-8) does seem to state straightforwardly that Ares could have died.

57 Conversely, the claim that a certain person is ‘the gods’ equal in $\phi$’ should probably be read as ‘such and such is closer to the gods in $\phi$ than most men’. And similarly for other formulae such as ‘person $P$ is the equal of god $G$’ and ‘$P$ is like $G$’ and the ubiquitous epithet of ‘godlike $P$’.

58 Although this is only because she is “a god without strength” (ll. 5.331; tH), and for this reason Athene tells Diomedes that “you must not make open fight with the immortal gods, with any of them except Aphrodite” (ll. 5.130-1; tH). But even so, Aphrodite’s mother, on discovering her injury, still assumes that it was a god that injured her (ll. 5.370-4).
the nature of epistemology. Not all the sources of knowledge available to
the mortals of the heroic age remain available to these first philosophers.
The nature of their subject matter – things that cannot be directly observed –
largely precludes them from the principal source of knowledge in the Iliad –
direct visual experience. And it seems that they have also precluded
themselves from the principal source of knowledge of things unseen –
divine testimony – by their own choice: the removal of gods from their
cosmogonies and cosmologies appears to go hand in hand with their
removal as sources of information. But they have retained inference from
observations to conclusions about what is unobserved. One important
source of knowledge for the first philosophers, however has no precursor in
Homer – that is, *a priori* reasoning.
Chapter 2

REASON, OBSERVATION AND THE CRITICAL TRADITION IN THE MILESIANS AND XENOPHANES

Even with the broad sense of 'epistemology' used in this thesis – not limiting it just to theories of knowledge, but including concepts such as wisdom, comprehension and understanding – there is simply not a single explicit epistemological statement that has come down to us from the Milesians. There is no reason to doubt that they adopted the empiricism of the Iliad, in essence, since the whole Milesian enterprise is that of explaining the empirical world – there is no doubt that the earth, stars, clouds etc. exist; the questions are 'how did these things come to be, what is their nature, and what is the explanation of certain observable phenomena?' These questions are about what cannot be directly observed. So the only sensible question we can ask about Milesian epistemology is 'what are the epistemological presuppositions of the Milesians in relation to how we can know about (understand, comprehend, or the like) these unobservable things?' More precisely, in this chapter we will be asking 'did the Milesians use observation as evidence for their theories, or a priori reasoning, or both, or neither?' And, although Xenophanes did make some explicit epistemological statements, it will prove convenient to ask the same question about him at this point (his explicit epistemological statements will be examined in the next chapter). We will also be concerned to some degree with how good any observations or reasons are as grounds for the theories of these philosophers. Our question is tied up with the much discussed question of whether or not the Milesians were scientists, although it is not identical with it: questions such as whether the Milesians adopted, or indeed invented, the scientific principle of simplicity;1 whether Anaximenes' principle of condensation and rarefaction was the first step to reducing quality to quantity; etc. are beyond the scope of the present thesis.

Most of this chapter will be spent reviewing the textual evidence pertinent to determining the methodology and the epistemological presuppositions of the Milesians and Xenophanes, with specific comments on these texts given as I proceed. I will then review the main attempts of

---

1“That a maximum number of phenomena should be explained by a minimum of hypotheses” (Sambursky: 1956, p. 8).
Method and epistemology in the early Presocratics

scholars to give a general picture of this methodology. And, finally, I will present my own, essentially negative, general conclusions.

A PRIORI REASONING

We will, firstly, look at a priori reasoning, since this is by far the simpler part of our inquiry. The testimonia (and one fragment of Xenophanes) contain examples of a priori reasoning attributed to Anaximander and Xenophanes, and, unless we are to dismiss the testimonia out of hand, there seems little doubt that a priori reasoning is a part of philosophical method from the earliest times. Let us look at the rationalist elements of these two philosophers in turn.

Anaximander

Aristotle presents three apparently a priori arguments for why Anaximander made his ἀπέρος unlimited or infinite the ἀρχή (the stuff from which the world was supposed to have arisen, and of which it is still constituted)². The following seems the most plausible one to attribute to him (so attributed by Simplicius (Phys. 479.33), not Aristotle):³

²This is neither the ordinary sense of the word in ancient Greek nor the only sense in which Aristotle used it. However, it does seem to be the appropriate sense of the word when Aristotle used it of the Milesians (cf. esp. Arist. Met. 983b6-11 (11A12)), and it is the sense in which it is used throughout this thesis.

However, there is some dispute as to whether Aristotle was right in attributing an ἀρχή in this sense to the Milesians. Specifically, it is sometimes claimed that Thales’ water and Anaximander’s ἀπέρος were never meant to constitute the world – that is, Thales did not believe that the world still is water and Anaximander did not believe that the world still is ἀπέρος (cf. Kirk: 1983, pp. 90-1; Barnes: 1979, pp. 39-44). We should also note at this point that Xenophanes may have deviated from the Milesians by conceiving of the universe as originating from two elements, earth and water (Philo. Phys. 125.29-30 (21B29); Sext. M 10.314 (B33)).

³The argument at Phys. 203b4-11 (A15) is ‘everything is either an ἀρχή or derived from an ἄρχη; anything derived from an ἄρχη is limited by that ἄρχη; hence the ἀπέρος unlimited must be an ἄρχη’. It is not entirely clear that this argument is part of what Aristotle is attributing to Anaximander (cf. Barnes: 1979, pp. 35-6). Furthermore, if ἄρχη always means material cause and substratum when referring to the Milesians (see above note); and the normal translation of ἄρχη here is right (as I believe it is) – i.e. ‘principle’ in a more general sense than material cause; then Aristotle did not have any Milesian in mind here. The argument just below, at 203b18-20 (A15), is “the only way generation and destruction would not fail is if there were something unlimited from which what comes into being is subtracted”. This is incomplete, as Aristotle notes (208a9-10): it requires some additional assumption such as (a) the product of destruction cannot be used for further generation, or (b) the sum of existing things is increasing (Barnes: 1979, p. 35). And there is no evidence of any such assumptions in Anaximander. Indeed, assumption (a) is contrary to Anaximander’s apparent principle that opposed substances make retribution to one another – i.e. are reversibly interchangeable, so that the destruction of one is the generation of the other (Kirk: 1983, pp. 119-20).

An important difference between these two arguments and (16) should be noted: these are arguments for the limitlessness or infinitude of the ἀπέρος, while (16) is an argument for the nondescript nature of the ἀπέρος.
For there are some who make [something other than the elements] the unlimited, not air or water, so that the other [elements] are not destroyed by the unlimited element: for they are opposed to one another— for example, air is cold, water wet, and fire hot— and if one were unlimited, the other would have already been destroyed. But now, they say, the other [the unlimited] is that out of which these are made (16: Arist. Phys. 204b25-9 (12A15)).

This passage must be viewed together with the following, which at first sight seems to contain another argument for the same conclusion, but an argument based on empirical evidence:

It is clear that looking upon the change of the four elements into one another, he did not think it fitting to make any one of them underlying, but something other than and apart from these. He constructed this origin not from the alteration of the element, but from the separation of the opposites by the eternal motion (17: Simp. Phys. 24.21-5 (A9)).

(The observed changes of the four elements into one another were probably the seasons and the cycles of night and day (cf. Hussey: 1972, p. 24; Kahn: 1960, p. 184).)

The introductory phrase of (17) δηλον ... ὅτι it is clear that suggests that Simplicius is adding his own speculations on Anaximander here. However, (17) would be a fairly sound extrapolation from (16): what else could have led to the principle that the opposites (hot and cold etc.), hence the elements, destroy each other but observing things like the change from summer to winter? Since (17) does fit so well with (16), it was most likely inferred from either (16) or that part of Anaximander’s book that (16) comments on. But Simplicius is most likely working directly from Anaximander’s book since he had just quoted from it immediately prior to passage (17). So it is reasonable to suppose that (17) is a fairly sound extrapolation directly from that part of Anaximander’s book that Aristotle is commenting on in (16). Hence we can treat (16) and (17) as two parts of the same argument— namely, as a result of observing that the opposites, hence the elements, ‘consume’ each other, Anaximander inferred that in the extreme case, where only one of the elements existed, there would be nothing to consume it, hence it alone would remain forever (cf. Guthrie: 1962, pp. 80-2). So the observations of (17) led to the rational principle of (16), which, in turn, led to the conception of the nondescript ἀπειρον. This means that the argument is not purely a priori: although the reasoning extends well beyond the empirical evidence, it does begin with observation.

But we do not have to look far for examples of pure rationalism. Anaximander’s mathematical proportionality of the cosmos is presumably

4And see note 25.
5And if (17) is inferred directly from Anaximander, then (16) is presumably a fairly accurate commentary on Anaximander. Otherwise, it would be pure chance that (17) fits so well with (16).
6Although (17) still probably contains more than Anaximander spelt out clearly himself.
based completely in a priori speculation (cf. Cornford: 1952, pp. 164-6). Anaximander claimed that the heavenly bodies were rings of fire, but that what we see of these is just the fire that shows through certain openings (Aetius 2.13.7 (A18); Hippo. Ref. 1.6.4 (A11)). The rings that carry the sun and moon are 27 and 187 times the diameter of the earth, respectively (Aetius 2.21.1 (A21); 2.25.1 (A22)). And the depth of the earth is a third its width (Ps-Plut. Misc. 2 (A10)). If we speculate that the diameter of the rings of the fixed stars and planets, which were under the sun and moon (Aetius 2.15.6 (A18)), are 9 times that of the earth, then we find a precise mathematical order attributed to the cosmos. Similar mathematical proportion may be found in the map of the earth (Herodotus 4.36; Agath. Geo. 1.1-2 (A6)) that some scholars take to have originated with Anaximander (Kirk: 1983, pp. 104-5; Kahn: 1960, pp. 81-2). There is no argument in all this mathematical proportion, but it deserves to be marked out from other apparently purely speculative pronouncements because of its particularly rationalist nature.

But the most famous a priori reasoning attributed to Anaximander is that of the first application of the Principle of Sufficient Reason in establishing the earth at the centre of the cosmos:

The earth is in mid-air, being held by nothing, and holding fast due to its equal distance from everything (18: Hippo. Ref. 1.6.3 (A11)).

This is expanded on by Aristotle:

There are some who say that [the earth] stands fast because of the similarity, as, of the ancients, did Anaximander. For there is nothing more above or below or to the side to carry what is located in the middle and is similarly related to the edges: and it is impossible to move in opposite directions at the same time, so it stands fast by necessity (19: Heavens 295b11-6 (A26)).

Although the majority of scholars accept the attribution of the similarity argument to Anaximander, there are some dissenting views. Furley (1989/1, pp. 14-5) assumes that the similarity argument requires Anaximander to hold a ‘centrifocal’ theory – ‘down’ means toward the centre of the universe, and ‘up’ means away from the centre – and claims that “it is difficult to combine a flat earth with centrifocal dynamics” (p. 21). Furthermore, he argues that (19) is really derived from the similar passage in Plato (Phaedo 108e4-109a6), and that this passage was not based on Anaximander (pp. 18-9; cf. Robinson: 1971, pp. 112-3). But if this is right, Aristotle must have mistakenly assimilated Anaximander with the Phaedo passage (cf. Bodnar: 1992, pp. 337-8). But there is no reason, other than the alleged difficulty of combining a flat earth with centrifocal dynamics, to attribute this mistake to Aristotle. And I believe Furley’s difficulty is easily solved – Anaximander had no theory of dynamics, either centrifocal or parallel. Furley assumes that Anaximander thought through all the implications of his argument, but I see no reason to assume this. And Furley’s account has problems.

7 The text actually says 19, but this is considered to be corrupt, 18 being correct (Robinson: 1968, p. 314 n. 2.16).
Principally, he makes the ὀμοιότης similarity nothing more than an equal distribution of air that stops the earth tilting, leaving us with no acceptable support for the earth. So I find no reason not to accept (18) and (19) as they stand, and hence accept that Anaximander did use the a priori similarity argument.⁸

In short, Anaximander’s reason for choosing the ἀπειρος as his ἀρχή may not be purely a priori; and the mathematical proportion of his cosmos, although a rationalistic thesis, does not appear to have been argued for. But I do not believe there is any good reason to doubt the attribution of the similarity argument to him, and this does involve nothing more than a priori reasoning. On this basis alone, we can say that Anaximander was a rationalist in the sense that he believed that some important non-analytic truths could be known by reason alone.

Xenophanes

A degree of a priori reasoning is attributed to Xenophanes. The account of Xenophanes in the MXG is a particularly rich source of such reasoning. Many scholars, however, claim that the theses and arguments of this text are falsely attributed to Xenophanes because the author too readily attributed Eleatic reasoning to him solely on the basis of a loose association of him with the Eleatics in Aristotle (Met. 986b18-24 (A30)). And it is further claimed that similar theses and arguments in doxographers after the MXG, such as Simplicius, were due to these doxographers being misled by the MXG (cf. Guthrie: 1962, pp. 367-9; Burnet: 1945, p. 126). I am inclined to accept this,⁹ at least in relation to the arguments, since the style of argument

---

⁸That Anaximander used this similarity argument does not sit well with some testimonia. For example, Simplicius (Heavens 532.14-5) claims that Anaximander seems to use both the similarity argument and the support of the air. However, there is a problem with using both mechanisms, or, more precisely, with using any mechanism in addition to the similarity argument to support the earth. If what is meant by the support of air is a vortex (see below), or any other force, then it is conceivable that it only gives partial support to the earth, and that, consequently, something else is needed, some other force, to assist it if the earth is to be fully supported. Such a scenario is not possible with similarity: either similarity is able to support the earth by itself or it gives no support at all; it would completely contradict the argument to say that the equidistance of the earth from everything helps to stop the world falling to the bottom of the universe, but it isn’t quite enough to stop it falling by itself. The best sense I can make of Simplicius’ remarks, that avoids this problem, is that it was the similarity argument that held the earth at the centre, but the air, in the form of a vortex, that placed it at the centre, and that Anaximander was not very clear in his expression of this last point. Robinson (1971, pp. 116-7), however, suggests that the similarity in Simplicius refers to the similar force of the vortex on all sides of the earth stopping the earth from moving sideways, while it is the air that holds it up. Simplicius 532.14-5 seems to support Robinson since it is the air that is said to ἀνέβω support the earth. However, Simplicius does express some doubt as to the accuracy of his interpretation; and this doubt is clearly unavoidable since the air, by itself, does not even present a prima facie plausible support for Anaximander’s cylindrical earth (as opposed to Anaximenes’ flat disc shaped earth (see below)).

⁹Although we should note that while the style of the argument found in the MXG, and later texts influenced by it, does resemble, to some extent, the style of argument found in the Eleatics, I do not believe all these arguments were actually developed by the Eleatics.
first attributed to Xenophanes in the MXG is in marked contrast to the style of argument found in the more reliable reports on Xenophanes.

But not all Xenophanes’ *a priori* arguments are in this dubious category, for example:

Always he remains in the same place, moving not at all nor is it *fitting* for him to come here then go there (20: Simp. Phys. 23.10-1 (21B26)).

Xenophanes said that god is one and all. He shows that he is one because [i] he is the most powerful of all: for, he says, [ii] if there were more [gods], they would necessarily all have equal power (21: Simp. Phys. 22.30-23.1 (A31)).

[i] and the consequent of [ii] are contradictory propositions if we take [i] in its strongest sense – that is, there is nothing, animate or inanimate, that is more powerful than, or of equal power to, a god; so the antecedent of [ii] must be false; therefore, there is only one god. Any orthodox believer in the Olympian pantheon would simply deny both [i] and [ii], so the argument has little persuasive power. However, if genuine, it is an interesting display of deductive logic in pre-Aristotelian philosophy. Another passage possibly presents an argument for [ii]:

And about the gods he declared that there is no leadership among them, for it is forbidden by divine law that any of the gods has a master, and not one of them is lacking anything at all (22: Ps-Plut. Misc. 4 (A32)).

As an argument for [ii] this is not deductively valid – it is quite consistent for one person or god to be more powerful than another but not to be that others master.

Both (21) and (22) are, at best, paraphrases of Xenophanes. The similarity of passage (22) to fragment (20) suggests that it is a close paraphrase, but with passage (21) there is little way of telling how close it is to anything Xenophanes said (cf. Finkelberg: 1990, p. 143; Guthrie: 1962, p. 91). The following is also similar to fragment (20), so may also be a close paraphrase of an *a priori* argument:

Xenophanes said, “those who say the gods are born are as *impious* as those who say they die”: for either way it follows that the gods at some time are not (23: Arist. Rhet. 1399b6-9 (A12)).

But that there are *arguments* in (20), (22) and (23) is not immediately obvious. Indeed, many scholars flatly deny that Xenophanes used *a priori* reasoning (eg. Lesher: 1992, pp. 163-4; Jaeger: 1947, p. 49; Nietzsche: 1911, pp. 120-1). I, however, believe he did. Let us begin with (20): the argument here is essentially ‘god doesn’t move because οὐδὲ ... ἐπιρέπει it is not fitting that he does. Barnes (1979, p. 85) argues that οὐδὲ ... ἐπιρέπει can mean *not logically possible*, and it is not logically possible that god moves because it follows from the very nature or concept of god that he doesn’t move. I
believe this is essentially right, and would add that the contravention of
divine law in (22) and the impiety in (23) are due to conceptual errors that
Xenophanes is attempting to correct. This idea is made explicit in a passage
of the MXC: "For this is what a god and a god’s capacity is – to have power
and not to be in someone’s power, and to be most powerful of all" (977a24-9
(A28); tr. Barnes: 1979).

Now, ἐπιπρέπει can refer to what something characteristically is
(Lesher: 1992, p. 111), so it is not a great stretch to read (20) as ‘god doesn’t
move because it is against his nature to do so’. But ἐπιπρέπει can also refer to
what it is seemly for something to be, and Lesher prefers an interpretation
along these lines – “unfitting to the dignity, power [etc.] of the divine” –
because of the exalted status Xenophanes ascribes to the divine (p. 112; cf.
Kirk: 1983, p. 170). But it seems to me that these two senses of ἐπιπρέπει
come to much the same thing for Xenophanes’ god, precisely because of the
exalted status Xenophanes ascribes to him. That is, it is characteristic of a god
to only ever act in a seemly manner. This seems to be the upshot of the
following fragment:

Homer and Hesiod attributed to the gods all the things
which among men are shameful and blameworthy –
theft and adultery and mutual deception
(24: Sext. M 9.193 (B11); tB10; cf. 1.289).

So what is unseemly is uncharacteristic of a god. Furthermore, the
fragments and testimonia of Xenophanes’ theology suggest a god that,
unlike mortals or the Olympian gods, does not, and probably cannot, act
uncharacteristically.11 In short, it is the nature or character of a god to be
unvaryingly seemly, or, in other words, perfect. And from this perfection,
various attributes of god are inferred.12

So to say of such and such that οὐ& δε ἐπιπρέπει is to say that such and
such contradicts this divine perfection, hence it is not possible to attribute it
to a god. Furthermore, that such and such is οὐ δοιος forbidden by divine
law seems to mean the same thing; and those who ἄφθεω are impious are
presumably those who, in virtue of their lack of religiosity, hold beliefs that
contradict divine perfection.

As I said, this all results from the exalted status Xenophanes ascribes
to the divine. So those scholars who claim that his theology “springs from

10Translation by Barnes: 1987. Most translations that are not my own are taken from this
book, and I shall note that the translation is from there by this abbreviation.

11We should note that Reiche (1971, pp. 94-6) believes that ἐπιπρέπει retains its original
empirical sense of look or seem like (as in its only occurrence in Homer (Od. 14.252) (Lesher:
1992, p. 111)). The claim that god does not move is, then, based on certain observations not
specified in (20). Of course, the plausibility of such an empirical sense of ἐπιπρέπει is
dependent on the plausibility of Reiche’s attempt to demonstrate that Xenophanes’ theology
was derived from empirical evidence. I, however, find his attempt highly implausible (see
ch. 3 note 22).

12This perfection clearly contains a moral perfection (24), but most of the properties
attributed to god probably derive from his all powerfulness. This is clearly the case with
uniqueness (21); but also the need to move (20) would constitute a limit on his power; and if he
did not exist at sometime (23), then there was something else that was the most powerful
thing at that time.
Method and epistemology in the early Presocratics

an immediate sense of awe at the sublimity of the Divine” (Jaeger: 1947, p. 49; cf. Nietzsche: 1911, pp. 120-1) are correct. But this awe has been rationalised to allow logical inferences as to the nature of god from the assumption of his perfection, an assumption seated in this awe. That is, far from being a religious visionary instead of a logician, it is his vision of god that his logic rests on.

So, Xenophanes too can be classed as a rationalist in the same sense as Anaximander. Although Xenophanes’ reasoning is essentially analytic, this doesn’t mean his conclusions are analytic since his reasoning does contain at least one non-analytic assumption: God exists.

**EMPIRICAL EVIDENCE**

Unfortunately, the ancient testimonia contains only a few references to observations which are clearly being used as evidence for some theory in the philosophy of the Milesians and Xenophanes. But, in addition to these, there are references to observations in analogies, which are not so clearly meant as evidence for the theory that forms the second element of the analogy. We will deal with these analogies in the next section, here we will examine the more straightforward attributions of the use of empirical evidence to the Milesians and Xenophanes. Some of these references are clearly speculations on the part of the doxographers, but not all.

But, firstly, we should note that some of the Milesian’s theses about the earth may not only be based on observation, but may well have been thought to be based on direct observation – to be nothing more than statements of what is seen. They probably thought the earth is flat because it looks flat (Popper: 1970, pp. 134-5); Anaximander probably thought it is circular because the horizon looks circular; and he probably gave it depth because it seems solid beneath our feet (Kirk: 1970, p. 166). Popper argues that there is little doubt that the flatness of the earth was due to observation since this contradicts the rational picture of the similarity argument, which implies that the earth is a sphere. Popper is wrong here. All the similarity argument requires is that for any point on the earth’s surface, there is one other point that is equidistant from the outer edge of the universe (following a straight line from the centre of the earth through that point), and this is satisfied by a cylindrical earth. The Milesians, along with nearly

---

13I am here assuming that Anaximander’s universe is spherical. But this is not strictly necessary, it could be a cylinder with its axis in line with the axis of the earth, for example, and the above condition would still be satisfied; or it could be infinite and boundless, in which case this condition would be satisfied whatever shape the earth is.

Barnes (1979, p. 24) suggests that Anaximander requires a stronger condition than I have specified – that is, for any straight line from the centre of the earth to the boundary of the cosmos, there must be one other such line, such that every point of that is qualitatively indistinguishable from the point of that is the same distance from the earth’s centre. This entails my condition, but considerably more. If Barnes is right, then we would have a possible motivation for the celestial rings – that is, Anaximander thought they were necessary to make the similarity argument work (Popper: 1970, pp. 135-6): for if cut through the sun at distance from the earth’s centre there would be another line, that cut through another part of the ring at the same distance, from the earth’s centre. But why should Anaximander have supposed that the heavenly bodies would exert any force on the earth at
all ancient Greeks, also accept experience in making the earth stationary (it is the *explanation* of this stationary earth that constitutes an *a priori* argument for Anaximander). But such uncritical reliance on observation must have already begun to be undermined with Anaximander. In making the earth unsupported, but still stationary, he contradicts another belief that is based on uncritical experience – that every thing falls down if unsupported. Anaximander is willing to go against experience here by denying that the earth falls down. Of course, it does not require much thought to realise that these experiential beliefs – the earth is stationary and everything falls down if unsupported – do not sit well together, so anyone thinking seriously about these matters must go against experience one way or the other (McKirahan: 1994, pp. 40-1; Popper: 1970, p. 134).

But, as noted, the subject matter of Milesian inquiry severely limits the role of direct experience. In the main, observations constitute *indirect* evidence for a theory (if they constitute evidence at all). In relation to Thales, we find the following speculations about the possible empirical basis for him to make water the ἀρχή:

Thales, the founder of this kind of philosophy, says [the ἀρχή] is water (on account of which he reasoned that the earth rests on water), perhaps acquiring this idea by seeing that the nourishment of everything is moist and heat itself comes from this and lives by this (for whatever anything comes from is its ἀρχή), he acquired this idea for this reason and because the seeds of all things have a moist nature, and water is the natural principle of moist things (25: Arist. *Met.* 983b19-27 (11A12)).

Simplicius essentially repeats Aristotle (25), but adds:

Thales ... said the ἀρχή is water – having been led to this [conclusion] from what is apparent to sensory perception. For ... dead things dry up (26: *Phys.* 23.23-6 (A13)).

In spite of the additional suggestion of Simplicius, the overlap between his suppositions and Aristotle’s makes it clear that Aristotle is his all? The observation that things fall down (toward the earth), had led people to believe that the earth too would fall down to the bottom of the universe if it was without support. It is this supposition that Anaximander is countering. The supposition involves no consideration of ‘gravitational’ attraction of heavenly bodies, so I see no reason to suppose that Anaximander’s counter claim should involve any such consideration either. Indeed, if anything, the condition I set out above may be too strong – it may be that all the similarity argument requires is that for any line from the centre of the earth to the boundary of the universe, there is one other such line that is the same length (which, again, would make the shape of the earth irrelevant) (cf. Vernant: 1982, p. 121; Robinson: 1971, p. 112).

14Since it is difficult to see how the earth could be supported. As Aristotle notes, it would take “a rather lazy mind” (*Heavens* 294a13) not to be struck by this difficulty.

15Besides citing the other two reasons in this passage Aetius adds “that the fire of the sun itself and of the stars and the cosmos itself are nourished by the rising vapours of water” (1.3.1). This ‘nourishment’ of the heavenly bodies is probably what Aristotle meant in the preceding remark.
main, if not his only, source. But far from giving support to the supposition that Thales used observation as evidence for his metaphysics, the fact that Aristotle needed to speculate on what these observations might have been means that he was not aware of any particular observations reported by Thales. Although this does not necessarily mean that Thales did not provide any such empirical evidence, it does suggest it. (This, however, has not prevented modern scholars from entering into highly speculative arguments about the empirical basis of Thales' ἀρχή (cf. Guthrie: 1962, p. 62; Burnet: 1945, pp. 48-9).) Furthermore, McKirahan (1994, pp. 28-9) points out that if water was only the source of the world for Thales (but not the stuff of which all things are presently constituted, so not the ἀρχή), this could be nothing more than a (demythologised) adoption of Far Eastern myth. In which case, Aristotle may simply have given Thales too much credit in assuming he had an empirical basis for his theory.

There is another theory in relation to which the use of empirical evidence is clearly attributed to Thales:

Thales seems, from what they say, to have believed that the soul is something that produces motion, if he said that the stone has a soul because it moves iron (27: Arist. Soul 405a19-21 (A22)).

Aristotle and Hippias say that he attributed a share of soul to lifeless things, deriving this [conclusion] from the magnet and amber (28: DL 1.24 (A1)).

It is a popular belief among scholars that the Milesians were hylozoists (that they believed that the world is essentially alive) (eg. McKirahan: 1994, pp. 35-6; Lloyd: 1991, p. 149; Guthrie: 1962, pp. 127-8). The biological arguments in (25) and (26) certainly suggest that Thales was a hylozoist, but we have reason to doubt whether he did use such arguments. Kirk (1983, p. 147) argues that one possible reason why Anaximenes made air his ἀρχή is that breath was life-giving, hence he too was working from the assumption of hylozoism. But there are other possible reasons for his

---

16 And likewise for Aetius (see above note).
17 We should note that it is not clear whether Thales wrote anything on his philosophy, but if he did, it was lost by Aristotle's time since his evidence is clearly indirect and incomplete.
18 We should note here Kirk's (1970, pp. 163-5) interesting suggestion that such myths were probably based on experience for such river people as the Egyptians and Mesopotamians, hence the theory is based in observation or experience after all. Now, I accept that it is unimportant whether any observations used to support a person's theory were actually made by that person. And let's accept, for arguments sake, that the mythical belief that the earth floats on water was based in observation for the Egyptians and Mesopotamians. Even then, it is not clear that the observations were passed on to Thales along with the theory. And if the observations themselves were not passed on with the theory, then Thales' theory was not based on observation in any relevant sense.
19 Although Aristotle is being cautious here, it is clear that he is not just recording his own speculations, but the reports of others.
20 If this is right, Anaximenes position respects an age-old belief, still popular in his time, that identifies breath and life (Kirk: 1983, p. 147; Guthrie: 1962, p. 128). Another reason is suggested by "air is close to the incorporeal" (Olymp. Stone 25 (13B3)), although this passage is generally considered to be spurious.
use of air as the ἀρχή. So is there any more compelling evidence for this position? Lloyd (1966, p. 265) takes hylozoism to be “undoubtedly connected with the religious belief that the primary stuff is divine” (29) (cf. Cornford: 1952, pp. 178-9). This leads him to suggest that Thales’ assertion that “everything is full of gods” (Arist. Soul 411a8 (A22)) could be an expression of hylozoism. However, this could also be the first explicit statement of the pre-philosophic view that a great deal of the universe beyond what we would take to be animate is imbued with life (cf. Kirk: 1983, pp. 97-8).

But what are we to make of the attribution of ψυχή soul or life to the magnet and amber in (27) and (28)? On either of the above interpretations of “everything is full of gods”, these are probably not meant to be the only examples of the general principle that life extends beyond what we would take to be animate (Lloyd: 1966, pp. 233-4). This is surely true if indeed, for Thales, whatever produces motion is alive (27). Then, presumably, the wind, the rivers, the sea and the heavenly bodies would all be alive. This certainly makes a great deal, at least, of the universe alive. But if he took all things to be water, it is hard to resist the conclusion that Thales was a hylozoist (McKirahan: 1994, p. 31), simply because water is normally seen to be in motion.

For Anaximander, passage (45) may be taken as evidence of hylozoism (cf. Lloyd: 1966, pp. 234-6). But without additional evidence the biological language of (45) could be purely metaphorical or figurative (see below). As for Anaximenes, he does compare man with the world (Aetius 1.3.4 (B2)), but this does not necessarily imply that both are alive. But there is some additional evidence in the fact that the divine ἀρχή of the Milesians is associated with ‘steering all things’. This strongly suggests a moving and conscious, thus living, element to the ἀρχή, hence the world (cf. Cornford: 1952, p. 179):

It is supposed that [the infinite] is the [ἀρχή] of other things and it surrounds all and steers all ... And it is divine, for it is deathless and indestructible, as Anaximander and most other natural scientists say (29: Arist. Phys. 203b10-5 (12A15)).

So if we accept that Thales, at least, was a hylozoist, from passages (25) – (28) we could attribute something like the following line of argument to

---

21This view is implied in the biological generation and personification of world masses in Hesiod’s Theogony and the personification of world masses in Homer. Although these entail the attribution of life to what we consider to be inanimate, the attribution is only to parts of the inanimate universe, and there is no evidence that the universe as a whole was viewed as alive in pre-philosophic Greece.

22Aristotle associates the eternal motion with the divine: “Hence, one does well to persuade oneself that the ancient beliefs, the best of our traditions, are true – that is, that there is something deathless and divine among the things having motion, but such [motion] that there is no limit to it ... it having neither beginning nor end, but being never-ending for infinite time” (Heavens 284a2-10). Could Thales be one of the ancients to whom Aristotle refers? If he is, then the divine ἀρχή (29) is in eternal motion. And if motion is sufficient for life (27), then hylozoism necessarily follows.

23Although, unlike an oarsman, the divine ἀρχή need not move to steer all things. And in Xenophanes we know that his god didn’t move (20), but still “shakes all by the power of his mind” (Simp. Phys. 23.19 (B25)).
him. From the equation of life with motive power plus the observation of a
great deal of motive power in the world, of which the magnet and amber
are only two examples, he infers that the world is alive. Then, from the
principle that the world is alive plus the observation that moisture is life-
giving, he infers that the ἀρχή (that which gave life to the universe) is
water. There is an element of circularity here, however. To conclude that
Thales was a hylozoist, I made use of the fact that this seems to be implied
by Thales’ ἀρχή being water – something normally observed to be in
motion. Yet, in the above argument, hylozoism is presented as a premise
to the conclusion that the ἀρχή is water. But this is only problematic if we take
the above line of argument to represent how Thales reached his
conclusions, rather than an argument he used to convince others of his
conclusions. And, of course, the attribution of such an argument to Thales
is only as strong as the text it relies upon, and the first two texts ((25)
and (26)), especially, are not very strong.

We have already seen the comments of Simplicius (17) on the
empirical basis for Anaximander to make the ἀπώρος his ἀρχή. In addition
to this, a passage from Aristotle (Meteor. 352a17-25) suggests that
Anaximander’s theory of the drying up of the sea was also based on
empirical evidence. Aristotle rebuked the theory by saying that its adherents
derived it from observations of local examples of drying up24 (a process that
was conspicuous in Anaximander’s time (Kirk: 1983, p. 139); and the silting
up of the harbour of Miletus continues to this day (McKirahan: 1994, p.
41)).25 And we can, perhaps, include Anaximander’s account of rain as being
based on empirical evidence:

Rain comes from the vapours of earthly things sent up by the sun (30:
Hippo. Ref. 1.6.7 (A11)).

Presumably, this means that rain is due to condensation of vapours
evaporated by the sun, which would be based on the observation of
 evaporation (and the reasonable inference that what goes up must come
down). The corresponding accounts of wind, lightning, and thunder,
however, seem to be purely speculative.

But now to turn to Anaximenes. The straightforward textual
evidence for his use of empirical evidence is even more scant than that for
Thales and Anaximander (although, as we shall see, there are considerable
references to his use of observation in analogy). Plutarch claims that
Anaximenes associated cold with condensation and heat with rarefaction, a
claim for which he gives the following empirical support:

24 Aristotle does not mention Anaximander by name: rather he refers generally to those who
 believe the world is drying up. So he may not have had Anaximander in mind, and, even if he
did, his inclusion may have constituted an over-generalisation. Xenophanes also believed
the world was drying up, so the passage is just as relevant to him. But, for Xenophanes, we
have much better evidence that he derived this theory from observation in (34).
25 The observations could have been interpreted as examples of elements changing into one
another viz water into earth. So they may be further examples of the observed elemental
changes alluded to in (17).
From this it is not unreasonable to say that a man releases both hot and cold from his mouth. For the breath is cooled when pressed tight and close by the lips, but when the mouth is relaxed the escaping [air] becomes hot because of its rareness (31: Cold 947f (13B1)).

The introductory phrase ὃθεν οὐκ ἀπεικότως λέγεοθαί from this it is not unreasonable to say casts some doubt on whether this passage is being attributed to Anaximenes. Kirk (1983, p. 150 n. 1) accepts that “the word λέγεοθαί may suggest that the observation was a common one, not made for the first time by Anaximenes” (my italics). But I would go further, and say that the introductory phrase could mean that this is a reasonable inference from Anaximenes’ theory irrespective of whether Anaximenes made it himself.

But, far from doubting that even this piece of empirical evidence was Anaximenes, Barnes (1979, pp. 47, 50) argues that Anaximenes did collect “a mass of empirical evidence” (p. 50) to support his theory of condensation and rarefaction – that all properties of substances are dependent on density. This he did by applying the theory “to a variety of disparate phenomena – astronomical and meteorological” (p. 47): the theory could be applied to explain the different temperatures of the air when one breathes out with compressed or relaxed lips; the fluffiness of clouds; the relative positions of the heavenly fire, air, water and earth in the universe (rarer things tend to sit above denser things)26; and the falling of rain, hail and snow. All these phenomena confirm the theory by being explained by it. As far as I can see, this exhausts the list of phenomena that is explained by the theory: hardly a mass of empirical phenomena, but a large amount compared to the dearth of empirical evidence witnessed so far.

The textual evidence for Xenophanes’ use of observation as evidence is as scant as any of the Milesians, but in Xenophanes the relation of evidence to theory is stronger:

Each race depicts their [gods’] shapes as similar to their own ... the Ethiopians making them dark and snub nosed, the Thracians red haired and blue eyed (32: Clem. Misc. 7.4.22.1 (B16); tB).

These observations are used as evidence against the existence of the traditional anthropomorphic gods of Greece and other lands. Although the next fragment does not involve empirical evidence, it should be noted because it expands on the empirical evidence of (32) successfully – that is, in a way that can only enhance the persuasive power of (32):

But if cows and horses or lions had hands or could draw ... then horses would draw the forms of gods like horses, cows like cows (33: Clem. Misc. 5.16.109.3 (B15); tB).

26 This tendency is not absolute, but there must be some counter-balancing reason why the tendency is overcome – eg. the earth floats on the air only because it is flat, and the resultant resistance to the air overcomes its tendency to fall.
But the following passage is perhaps the most famous account of the use of empirical evidence in early Greek philosophy:

Xenophanes thinks that the earth mixes with the sea. He holds that the earth in time is dissolved by the moisture, urging as proof the fact that shells are found in the middle of the land and on mountains; and he says that in the quarries in Syracuse there were found impressions of fish and seaweed, on Paros the impression of a bay-leaf deep in the rock, and on Malta shapes of all sea creatures. He says that these were formed long ago when everything was covered in mud – the impressions dried in the mud.

All men are destroyed when the earth is carried down into the sea and becomes mud; then they begin to be born again – and this is the foundation of all the worlds

Compared to what we have seen so far, the observations collected here are numerous. It is often pointed out that in spite of this the thesis goes beyond what is implied by the evidence, but we should ask just how far beyond it goes. The existence of shells and impressions of sea animals and plants, plus the bay-leaf impression, in places above sea level is the empirical evidence. The first step in explaining these impressions is the hypothesis that the sea level was higher in the past than it is now. This explains the shells fully; and it explains how the fish etc. reach the places where the impressions were found, but it does not explain how these sea organisms became impressions. This is explained by saying that the sea was mud when it reached these higher levels, which is, in turn, explained by the sea dissolving the earth. And this explains the point of the bay-leaf impression: although this provides no evidence of the higher sea level, it does provide evidence that the sea had turned to mud. So the evidence supports more than just the theory that the sea had receded in Xenophanes day, it also supports the theory that the sea increased in the past and that this was due to dissolving the earth into mud. But the theory still goes beyond the evidence: the evidence provides no support for the claim that eventually the whole earth was dissolved by the water, nor that the cycle will be repeated in the future.

\[27\] McKirahan (1994, p. 66) suggests that the belief in repeated cycles “implies that he believes in a principle of causation according to which, in some sense, similar conditions lead to similar results”. But Xenophanes gives no account of what causes the successive deluges and dryings. For McKirahan’s point to follow, the deluge would have to somehow cause the drying up and vice versa – Xenophanes may have believed this, but there is no evidence for or against it.

\[28\] Gomperz (1953/1, pp. 81-2) includes the claim that the dissolution of the earth and consequent rising of the sea happened at the same time in Paros as it did in Syracuse and Malta as an element in his theory that is not supported by the facts. Certainly, it is not supported by the facts listed in (34); but it may have been supported by the common place observation, that hardly needs mentioning (if one is blissfully ignorant of Aristotle’s (Meteor. 352a17-25) observations to the contrary), that water in any container stays level. So if the sea rose, it would naturally be inferred from this observation that it rose evenly.
ANALOGY

As I have already mentioned, many of the uses of observation are in analogies. By analogy I just mean that two objects or processes are compared because they are similar, because they have one or more features in common. For example, for Anaximenes the earth is like a table because both are flat. The analogies we must examine are those where one term of the analogy is an observable fact or object, and the other is a theory. Analogy has several uses. Barnes (1979, pp. 54-5) lists the following four, which strike me as exhaustive, at least in relation to the analogies of the Milesians and Xenophanes:

(i) Decoration: analogy can colour otherwise dull prose.
(ii) Illustration: it can dispel puzzlement by showing that similar things can happen in other circumstances.
(iii) Explanation: it can be meant to show how some phenomenon does happen.29
(iv) Argument: it can involve an argument by analogy. In the case of the first philosophers, the analogy is between two processes; a similar cause being argued due to some similarity of the effects.

Use (ii) requires some explication. It falls short of (iii), explanation, because the more familiar process need not show how the puzzling process occurs. For example, Xenophanes’ claim that the stars “rekindle” at night (38) may cause some puzzlement: ‘how could this happen?’ The analogy with embers then provides something familiar where this does happen. This could then be enough to dispel the initial puzzlement without necessarily explaining the rekindling of the stars: the process by which the stars are rekindled could still differ in an essential way from the process by which embers are rekindled, but still leave us satisfied that there is nothing problematic after all about the claim that the stars rekindle. (This means that an explanation should, then, require a stronger analogy – degree of similarity – than is necessary for an illustration; but the distinction between these uses may be quite muddy in relation to the first philosophers.) Only (iv) requires that the observation is being used as evidence. The role of analogy to dispel puzzlement is found as early as Homer, where obscure things, such as psychological states, are compared with directly observable phenomena. But Homer does not use analogy to explain natural phenomena (Lloyd: 1966, pp. 187-90). So this use of analogy was a new tool for the first philosophers, and one that, it would seem, received little or no critical examination by them. Lloyd (pp. 229, 319-20) suggests that in Presocratic thought even the weakest of analogy between some obscure phenomenon and something familiar and observable constituted an explanation of that phenomenon, and that the

29This role of analogy is essentially the same as the actual identification of something obscure with something familiar, as is best exemplified in Heraclitus’ identification of the heavenly bodies with bowls of flame (DL 9.9 (A1)); and Xenophanes’ identification of the sun, stars, moon, comets, rainbows, and St. Elmo’s fire with clouds (Aetius 2.13.14 (A38); 2.18.1 (A39); 2.20.3 (A40); 2.25.4 (A43); 3.2.2 (A44); Eust. II. 11.24 (B32)) (although the claim that the sun was made of clouds is questionable: it is also said to be made of a collection of small sparks (Hippo. Ref. 1.14.3 (A33))) (cf. Lloyd: 1966, pp. 321-2).
provision of such an explanation was sufficient support for the theory expounded on that obscure phenomenon. Indeed, some pre-Platonic medical writers explicitly presented weak analogies as definite proofs (pp. 358, 388-9). In other words, use (iii) may involve observation being used as evidence, and (iii) may be what is involved even when the analogy seems too weak to allow this.\(^3\)

We must now examine the various uses of analogy by the Milesians and Xenophanes. Thales uses analogy in the following:

They say that ... Thales ... thought that the earth rests [on water] because it can float like a log or something else of that sort (35: Arist. *Heavens* 294a29-31 (A14); tB).

The world is held up by water and rides like a ship, and when it is said to ‘quake’ it is actually rocking because of the water’s movement (36: Sen. *Quest.* 3.14.1 (A15); tr. Kirk: 1983).

Aristotle points out the obvious objection to analogy with a log (35): unlike lumps of wood, lumps of earth or rock just don’t float (*Heavens* 294b2-6 (A14)). A similar objection does not necessarily apply to (36), since a ship floats because of the air trapped in it; and Thales could have taken the poetic picture of a hollow earth for granted. It is unlikely, however, that the ship analogy was intended to be taken in this way. If the ship had been used to explain how the earth floats, then Thales would probably not have used the weaker log analogy at all. But Seneca could not have had better source material than Aristotle; so we can hardly dismiss the log analogy in favour of the ship. However, we can hardly dismiss the ship analogy entirely, since it is implausible that Seneca would have fabricated the whole ship-earthquake analogy. In short, it seems most likely that both analogies were given by Thales: the log is compared to a floating earth; but the ship is compared only to the “rocking” earth during earthquakes.

The log analogy may be merely decorative, but it may also fit function (ii): illustrating how the earth might float by pointing to other things that do float.\(^3\) It is unlikely that, in such a poor analogy, the observation could have been meant as evidence for the theory (the analogy between the ship and earthquakes will be dealt with below). Indeed, it has been suggested that Thales’ theory that the earth floats on water was based on the mythology of

---

3\(^{\text{There is no reflection on argument from analogy, or any other form of inference, in the extant material on the early Presocratics. Lloyd (1966, pp. 338-9) suggests that the earliest reflection on this amongst philosophers is found in Anaxagoras’ maxim that “apparent things are a view of unclear things” (Sext. *M* 7.140 (59B21a)). Although such a maxim could be readily applied to more that just argument from analogy, most uses of analogy, not just those that entail an argument from analogy, in the Milesians do fit the bill: they use something readily observable (apparent) to shed some light on something not directly observable (unclear). Some reflection is also found outside philosophy, in Anaxagoras’ contemporary Herodotus and possibly some pre-Platonic medical writers (these are, I believe, comprehensively examined in Lloyd (1966, pp. 341-55)). Aristotle (Anal. 68b38-69a13) explicitly spells out this argument form.}}

3\(^{\text{Lloyd (1966, pp. 319-20) suggests that even this weak analogy could have been meant to explain why the earth doesn’t fall, but the negative analogy pointed out by Aristotle seems too obvious to have been missed.}}


Like Thales, Anaximander (37) and Xenophanes (38) present us with analogies that have some, but little, illustrative power:

[The earth’s] shape is rounded, circular, like a stone pillar (37: Hippo. Ref. 1.6.3 (A10); tB).

Being daily quenched [the stars] rekindle at night like embers; their risings and settings are ignition and quenching (38: Aetius 2.13.14 (A38); tr. Guthrie: 1962).

But it is Anaximenes who is by far the most prone to the use of analogies, as we can see in the following:

[The earth] is like a table (39: Aetius 2.10.3 (A20); tr. Robinson: 1968).

He says that the heavenly bodies move not under the earth, as others have supposed, but round the earth – just as a felt cap turns on the head (40: Hippo. Ref. 1.7.6 (A7); tB).

Anaximenes says that [i] the stars have been planted firmly in the crystalline in the manner of nails, and some say [ii] they are fiery leaves just like paintings (41: Aetius 2.14.3 (A14)).

A nice blend of analogy and observation occurs in the following:

Anaximenes and Anaxagoras and Democritus say that the flatness [of the earth] is the cause of it holding fast: for it does not cut, but covers the air below it like a lid. Of all things, it is flat bodies that are seen to do this, for they hold firm against the wind because of their resistance. And they say that the earth does the same in relation to the underlying air because of its flatness. And not having enough room to move, it is at rest in a mass below, just like the water in klepsydrae.33 That the air is able to bear much weight when it is

---

32This is not normally translated as saying that it is flat bodies of all things that are seen to do this. But the point of the partitive genitive and the emphatic 07IEp the very things which seems to be to emphasise that it is only flat bodies that “are seen to do this”.

33Klepsydrae were metal vessels “used for transferring liquids from one container to another. The top of the vessel had a single narrow opening which could be blocked with the hand: the base was perforated in the form of a strainer” (Lloyd: 1966, p. 328 n. 1). The point being that, when the opening of a klepsydra was blocked, the water did not escape through the perforations at the base. For this to have any relevance to the air underlying the earth, that air must be only partially contained. For example, the earth (and any number of other heavenly bodies) could be surrounded by a crystalline sphere. This would block the movement of the underlying air downward and sidewards. However, the earth is presumably not in contact with the sphere, at least not at every point (otherwise the sphere, rather than the underlying air, would be holding up the earth). Consequently, there would be space between the sphere and the earth, presenting the possibility of some of the underlying air escaping into the air above the earth. The klepsydra analogy, then, points out that this could still make the underlying air sufficiently contained for it to remain an integral mass below the earth. (Aristotle later seems to claim that the lack of space to move is due to the sheer
enclosed and held fast, they mention numerous proofs\(^\text{34}\) (42: Arist. Heavens 294b13-21 (A20)).

The sun is flat like a leaf (43: Aetius 2.22.1 (A15); tr. Kirk: 1983).

Anaximenes expands on Anaximander’s explanation of lightning, which is that lightning occurs when the wind divides the clouds, by adding what happens in the case of sea, which flashes when cleft by oars (44: Aetius 3.3.2 (A17); tr. Kirk: 1983).

The first analogy (39) is purely decorative – it tells us nothing more than that the earth is flat. As for (40), it is difficult to determine just what this means: it is probably intended to be illustrative, but it doesn’t succeed, at least not for a modern reader – it increases rather than reduces puzzlement.\(^\text{35}\) There is some dispute over just what in (41) is to be attributed to Anaximenes: even though Aetius only attributes [i] to him, Kirk (1983, p. 155) has suggested that he is in fact responsible for [ii].\(^\text{36}\) Either way the analogies seem to be little more than decoration.\(^\text{37}\) The only informative analogy in this passage is hidden in the word κρυσταλλοειδῆς crystalline, which literally means ice-like.

The analogies in (42) are clearly more than merely decorative or illustrative: the observed behaviour of flat bodies is supposed to explain how the earth floats on air. In fact (42) seems to contain an implicit argument based on the principle that similar causes produce similar effects. Oddly, the analogy in (43) is probably part of a similar explanation of the motion of the heavenly bodies: the same observed behaviour of flat bodies,

\(^\text{amount of air trapped under the earth (294b25-8 (A20)), but this would seem to remove any conceivable point to the klepsydra analogy.)}\(^\text{34}\)The reference to τευχηρα πολλά numerous proofs is possibly only to Anaxagoras (Arist. Phys. 213a25-8 (59A68)) and Empedocles (Arist. Resp. 473b9-474a5 (31B100)) (even though he is not mentioned by Aristotle in this context). However, it does seem to constitute some evidence for Burnet’s thesis that only a small fraction of the actual observations and experiments of the Presocratics were ever recorded (see below).

\(^\text{35}\)The word translated “felt cap” is πλίαν, which was used to denote felt and items made of felt. One such item was a hemispherical felt cap (Bicknell: 1966, p. 17). Kirk (1983, p. 156) accepts this felt cap analogy, but Guthrie (1962, p. 138 n. 1) suggests a felt turban wound round the head. The cap analogy has the advantage that the cap would have the right motion – i.e. lateral – but a close-fitting (Kirk, p. 156) felt cap would only move partially around the head. The turban analogy has the advantage that the cloth of the turban would be wound completely around the head, but it would not be wound laterally. (Bicknell lists a number of other problems with both interpretations.) Bicknell suggests that πλίαν does not refer to either a hat or a turban, but to a felt ribbon that would be wound completely and laterally around the head (p. 18).

\(^\text{36}\)Principally, because Anaximenes theory of condensation and rarefaction implies that only the hot and rare would be in the outer-heavens, whereas κρυσταλλοειδῆς crystalline (literally ice-like) implies something solid and cold (although Guthrie (1956, pp. 41-4) attempts to argue against this apparent implication), while “fiery leaves” fits this schema, and other texts perfectly (43); Aetius 2.13.10 (A14); Hippo. Ref. 1.7.4 (A7)).

\(^\text{37}\)Barnes (1979, p. 54) seems to think that the phrase “in the manner of nails” is illustrative of how the stars are fixed, but surely it gives us nothing more than that they are embedded in the crystalline, which is already suggested by the word καταστήμης + the dative planted firmly in.
particularly of leaves, is presumably also supposed to explain the motion of
heavenly bodies which “ride the air because of their flatness” (Hippo. Ref.
1.7.4 (A7); tB). The argument in (42) does not, at first sight, seem to be very
good. The causes are similar since in both scenarios air is acting on flat
bodies. The problem is that the observed behaviour of flat bodies such as
leaves is not the same as the proposed behaviour of the earth: flat bodies
eventually do fall down, they just take longer than other shaped bodies; and
they are certainly not ‘held fast’, but can be blown all over the place.
However, Anaximander may have been trying to overcome just these
difficulties with the further klepsydra analogy. The purpose of this analogy
may have been to demonstrate that the air beneath the earth could be
constrained into a far more coherent mass than the air beneath falling
leaves. This would also explain why the same cause – the action of air on
flat bodies – seems to have been used to explain opposed effects – the lack of
motion of the earth and the motion of the heavenly bodies. Unlike the air
contained beneath the earth, the air above could be in a constant whirlpool
motion, dragging the heavenly bodies along with it as a whirlpool drags
leaves. And this picture requires that “the heavenly bodies move not under...
but round the earth” (40).

Similarly, in (44) the observed behaviour of oars in water is supposed
to explain how lightning occurs. In (44) the causes are similar since clouds
are made up of water and the oar is acting on water in the same way as wind
on clouds (Hippo Ref. 1.7.7-8; Aetius 3.3.1 (A23)); hence, the alleged similar
effect. But the effects are not that similar: reflection could not constitute the
kind of “flashes” involved in lightning. But the negative analogy, as I have
suggested, does not mean that (44) was not intended to be an argument (cf.
Lloyd: 1966, pp. 315-7).39

Thales ship-earthquake analogy is another such argument. Seneca
clearly states that “by way of proof that waters exist as the cause of
earthquakes and that the earth is agitated by these waters, he proposes this:
in every great earthquake new springs usually break out, just as it also
happens that if ships tilt and lean to one side they take in water” (Quest.
6.6.2; tr. Corcoran from Seneca: 1972; my italics). Again the similar cause is
the rough motion of underlying water. But again, as Seneca points out, the
effects are not that similar: it is always part of the earth that is shaken, but
always the whole of a ship. Furthermore, the evidence is overstated – “there
has often been an earthquake and yet no new liquid flowed” (6.6.2; tr.
Corcoran from Seneca: 1972).

An important form of analogy often attributed to the Presocratics is
that of biological analogy. The following passage contains a number of
features that suggest that Anaximander’s account of the generation of the

---

38See note 33.
39Kirk (1983, p. 161) and Barnes (1979, p. 54) take it for granted that (44) is merely
illustrative. Barnes, perhaps, because of his disdain for arguments from analogy (pp. 55-6).
But the arguments I have suggested are not of the narrow form of analogical argument Barnes
has in mind – ie. object a has properties P and Q; b has property P; therefore b has property Q.
universe was based in biological, or more specifically embryological, analogy:40

At the generation of this world that which is productive from the eternal of hot and cold separated off and from it a ball of flame grew round the air about the earth, like bark on a tree. When the ball burst and was enclosed in certain circles, the sun and the moon and the stars came into being (45: Ps-Plut. Misc. 2 (A10); tB).

There is the use of γένεσις generation and γόνυμος productive, which have clear biological uses; the word φλοιός bark derives from φλέω “a verb always closely connected with generation, and means any skin that forms round a growing organism, whether plant or animal”; ἀπορρήτω burst is used of “the detaching of a new growth from the parent body” (Baldry: 1932, p. 30); in the Hippocratic Corpus ἀποκρίνει separation off is used of the seed in the womb; and these writings also make use of hot and cold – the cold was drawn in from the mother by the hot seed to form the embryo (Baldry, pp. 27-30; cf. Lloyd: 1966, pp. 309-12; Guthrie: 1962, pp. 90-1). None of these words or concepts must retain any of their biological uses, but the sheer size of the biological comparisons cannot be ignored.

All the same, we need not necessarily infer from this that the world was literally born and is presently alive: the imagery could be there just to help form a picture of the generation of the world – the embryology on which the imagery is based may have been common knowledge among educated Greeks (cf. Baldry, p. 28). However, there is nothing in the text to suggest that the description as given is not to be taken literally. But it is equally true that there is nothing in the text to suggest that Anaximander’s account of the generation of the world was supported by biological observations, these observations are more likely to have been a source of ideas around which the account was build. Popper (1970, pp. 132-3) seems to believe that this is true of all uses of observation by the Presocratics – for example, he claims that Thales’ ship analogy (36) was only the inspiration for his theory of earthquakes, and was in no way a form of evidence for it. However, Seneca obviously did not believe this: the analogy being made, as we saw, “by way of proof”.41 Popper’s position is certainly overstated, but there are some texts besides (45) that can naturally be read this way – such as (25) and Anaximander’s fragment (Simp. Phys. 24.19-20 (B1)).

The biological nature of Anaximander’s account of the generation of the cosmos does not exclude the use of any mechanical model – that is, the biological and mechanical models need not be taken as conflicting (cf. Hussey: 1972, p. 23). This is particularly true of the ἰχνη vortex, if the conception of a living world meant little more than that it was in constant motion (Lloyd: 1991, p. 149; Guthrie: 1962, pp. 127-8). So the separation off of

40 Another biological analogy may be found in a fragment from Anaximenes (Aetius 1.3.4 (B2)), but this does not have an observable phenomena as one term of the analogy. Furthermore, it has been disputed whether it really contains an analogy (Longrigg: 1964, pp. 2-4); and, if it does, it is difficult to determine just what the role of the analogy is (cf. Kirk: 1983, pp. 159-61).

41 And if Seneca is not to be trusted here, why trust his attribution of the ship analogy to Thales at all?
the opposites from the ἀντιπάροις may be due to “the eternal motion” ((17); Hippo. Ref. 1.6.1-2 (A11)). And this eternal motion could be a δίνη since “all who generate the heavens say that the earth came together to the centre [via the vortex]” (Arist. Heavens 295a14-5 (59A88); tr. Kirk: 1983). Aristotle could be talking loosely about “all who generate the heaven”, but some support for attributing a vortex to Anaximander may be found in the combined accounts of Theon (198.18-9 Hiller (A26)) and Simplicius (Heavens 532.14-5): giving the claim that the earth rotates and is supported by the air – which at least suggests a vortex. If this attribution to Anaximander is correct, it seems plausible that, again, observations of natural phenomena have provided the source of ideas around which a cosmological account is built. But a similar cause similar effect argument could also be implicit in this analogy.

There are other mechanical analogies in Anaximander: saying the sun and moon are like chariot wheels (Aetius 2.20.1 (A21); 2.25.1 (A22)); and “the fire [of the sun] shows through an opening, as through the nozzle of a bellows” (Aetius 2.20.1 (A21); tr. Robinson: 1968). Lloyd (1966, p. 315) argues that the “quite elaborate” combination of these two analogies forms “the first attempt to construct a mechanical model by which to describe the movements of the heavenly bodies and a variety of other celestial phenomena” (cf. Sambursky: 1956, pp. 14-5). I see no reason to dispute this assessment, hence we must conclude that the role of these analogies is explanatory.

SO WHAT WAS THE METHODOLOGY OF THE MILESIANS AND XENOPHANES?

We are now in a position to make some general remarks on the methodology of the Milesians and Xenophanes, and thus to determine the epistemological presuppositions behind this. Unfortunately, most secondary literature on the present topic is concerned with whether or not the Ionian philosophers were scientists, and this was often equated with the question ‘did they have an empirical method?’ This is not the same as asking ‘did they use empirical evidence at all?’ Presumably, an ‘empirical method’ requires numerous observations, and these observations should support a theory that doesn’t extend too far beyond what they imply, and some observations should constitute a test of the theory. Consequently, distinct questions tend to get bundled together. Some such questions are: ‘did the first philosophers use observations in the formulation of their theories?’, ‘were these observations meant to constitute evidence for the theory?’, ‘how much observation was used?’, ‘how good was the empirical evidence?’, ‘were theories empirically tested?’, and ‘did a theory stand or fall according to the existence of empirical support?’. I will attempt to elaborate the empiricism of the first philosophers by addressing just these questions in turn.

Firstly, did the first philosophers use observation in the formation of their theories? After our review of the textual evidence, we can safely answer ‘yes’ to this question at least. Of course, some of the observations

42See note 8 on the claim that the air supports the earth.
were probably falsely attributed to these philosophers – in particular, we have seen reason to doubt (25), (26) and (31) – but there is no reason to conclude that all were. But were these observations meant to constitute evidence for their theories? I have argued that sometimes the observations only constitute the inspiration for the theory – the observations gave them the idea, but provided no evidence ((45), possibly (25), hence (26), and, if used at all, the whirlpool); and some analogies using observations are merely decorative or, at best, illustrative ((35), (37), (38), (39), (40) and (41)). But it would still seem, from the above review of the textual evidence, that some observations were used as evidence for scientific theories.

This, however, has been disputed. Cornford (1970, pp. 31-3; 1952, esp. pp. 38-9, 188-9, 193-7; cf. Guthrie: 1962, pp. 68-9) claims that the Presocratics are willing to speculate on matters that cannot be supported or tested by observation or experiment: a tendency that, he claims, is most clearly evidenced in their theories about the ἀρχή and their cosmogonies. This is especially apparent, he argues, when we realise that the basic pattern of their cosmogonies is found in earlier myths such as that of Hesiod. Furthermore, Cornford claims that these speculations about the ἀρχή and cosmogony constitute the starting-point of Ionian philosophy: their theories of more specific features of the world – of meteorology, biology and the like – are derived from these untestable principles (which are, in turn, derived from myth). All this would strongly count against any empirical inclination in the Presocratics.

However, Cornford’s position is greatly overstated. Firstly, we have already seen how observation may well have played a role in both Thales’ and Anaximander’s determination of their ἀρχή ((25), (26) and (17)), and Anaximenes’ fundamental theory of condensation and rarefaction (31). Secondly, I accept that the basic pattern of Milesian cosmogony is derived from myth, but so what? ‘All things have one and the same material source’ seems to be such a basic assumption derived from myth, but ‘this material source is water’ could still be based on observation (cf. Kirk: 1961, pp. 106-7; but see above). Finally, very little of the Milesians and Xenophanes’ meteorology bears any relation to their cosmogonical principles. Cornford’s (1952, pp. 170-1) only real case here is the relation between Anaximander’s biology and his cosmogony:44 the first animals came about from the action of the opposites (although not opposites of each other) of heat and moisture (Hippo. Ref. 1.6.6 (A10); Cens. Birth. 4.7 (A30)) – that is, the account of the origins of the first animals is derived from the important cosmogonical

43In all of these, we saw that there were varying degrees of doubt about the observations being correctly attributed to these philosophers. However, this is irrelevant for our present purposes since Cornford’s argument is based on the claim that these theories cannot have any empirical basis.

44McKirahan (1994, p. 40) points to some similarities between Anaximander’s cosmogony and meteorology: the use of ‘separating off’ in both his cosmogony (45) and his meteorology (Hippo. Ref. 1.6.7 (A11)); and his description of air as being enclosed in flame, then the flame bursting (45), is similar to his explanation of thunder and lightning as wind being enclosed in clouds then bursting out (Aetius 3.3.1 (A23)). However, the use of the same mechanisms at the cosmological and meteorological level does not mean that Anaximander’s meteorology follows on from his cosmogony – it is just as plausible that his cosmogony follows on from his meteorology.
principle of the opposites. Given this origin of animals, it is most natural to make these first animals fish; but nothing about this origin (contrary to what Cornford appears to believe) requires Anaximander to have his first humans born after puberty (Cens. Birth. 4.7 (A30)) – this was more likely due to the observation of the helplessness of infants (Lloyd: 1970, p. 18).

But even if Cornford were right in asserting that the more specific theories of the Ionians were derived from certain a priori first principles, this would not, by itself, count against the use of empirical evidence: a priori premises may well give direction to empirical inquiry (Vlastos: 1970, p. 50). Furthermore, in so far as these more specific theories could be empirically supported, this would allow an indirect path to the empirical support of the first principles (which is essentially how Barnes suggests Anaximenes proceeded (see above)).

Vlastos (1970, pp. 51-3) also argues that the theories of the Presocratics are untestable, simply due to their vagueness. For example, Anaximenes theory that “hot bodies are formed by rarefaction, cold ones by condensation … is not cast in the form of a strict functional variation of temperature and density, comparable, for example, to the inverse ratio of pressure and volume of gases in Boyle’s Law”. Hence it is simply not falsified by observations such as the fact that the earth can be hotter than the normal temperature of water or air, without liquefying or evaporating. I believe this is essentially correct. But we should be clear as to just what Vlastos’ conclusion is: vagueness means the theories are not falsifiable; but this does not mean they are not confirmable by empirical evidence. Indeed, far from showing that empirical evidence is not put forward in support of theories, this vagueness helps to explain the looseness we have observed between theory and evidence.

So the argument that the Presocratics could not have supported their theories with empirical evidence is not compelling. We should then accept that they did sometimes support their theories with empirical evidence as the textual evidence suggests. But how much observation was used? Burnet (1945, pp. 25-6; 1929, p. 254) argues, from the preservation of accounts of some use of empirical evidence, that in fact a great deal of empirical evidence was used. Burnet’s main reason for this is that the authors of most of the sources on the Presocratic philosophers “were to a great extent

---

45 Another similarity between his biology and cosmogony is that between the bursting of the ball like Φωκᾶς bark (45) and the account of men being enclosed in Φωκᾶς from which they break out (Aetius 5.19.4 (A30)) (but see above note; and above).
46 Burnet (1945, p. 71) points out that the further observation of γαδός dog-fish (Plut. Table 730e (A30); Love 494c), which “furnished him with the very thing he required to explain the survival of the earliest animals” (one species of dog-fish, the so-called ‘smooth shark’, being viviparous (Lloyd: 1970, p. 18)), constitutes far more than casual observation.
47 There is no reason to believe that the first philosophers distinguished between concepts such as ‘confirmation’ and ‘proof’; and, as poor as their empirical evidence seems to us even as confirmation of their theories, it is not impossible that they saw this evidence as proof of their theories. Also they may not have perceived that there are different degrees of confirmation: more specifically, Gomperz (1953/1, pp. 81-2) suggests that “a theory was felt to be an indivisible whole and was supposed to be corroborated in its entirety by any … fact in agreement with any assumption or belief forming part of the theory” (p. 81). He takes (34) to be an example of this point (see note 28).
inspired by the desire to discredit science by emphasising the way in which men of science contradicted each other, and the paradoxical character of the conclusions at which they arrived”. Hence it was outside, if not contrary to, their purposes to refer to any methods the Presocratics may have employed (1929, pp. 253-4). But, whatever one thinks of Burnet’s conspiratorial argument, another reason is that these authors are concerned, in large, to give summaries of these philosophers: summaries tend to give conclusions and skimp on the reasons for the conclusions (1945, pp. 25-6). A clear example of this is given by comparing the detailed account of Empedocles’ clepsydra experiment given by Aristotle (Resp. 473b1-474a5 (31B100)) to the brief allusion in Aetius: “He reminds us what happens with the clepsydra” (4.22.1 (A74); tr. Burnet: 1929) (Burnet: 1929, p. 255).48

But whatever the extent of the empirical evidence, we can still ask ‘how good was it?’ Certainly poor by the standards of modern science. To get from the evidence to the theory it allegedly supported it was sometimes necessary to use principles that were not themselves supported by empirical evidence, in addition to the empirical evidence, to derive the theory – for example, the observation of amber and magnets (and rivers and the wind) plus the principle that motive power is sufficient for life ((27) and (28)) possibly gives Thales’ the conclusion that the whole world is alive. The most damaging problem with such evidence is that if a different principle were adopted, a completely contrary conclusion could result: the author of On Ancient Medicine (13 (Littré I 598-600)) notes that if a hot meal cures a disease, this is evidence that disease is due to heat if like cures like; but evidence that disease is due to cold if unlike cures unlike (cf. Lloyd: 1966, pp. 69-70; Cornford: 1952, pp. 33-4).49 Or the theory may simply go beyond what is implied by the evidence, without any apparent attempt to shore up the gap with unsupported principles – for example, Xenophanes’ conclusion of cyclical drought and deluges (34) (similarly for the argument of Anaximander in (16) and (17) – here there is a rational principle involved, but this is inferred from experience).50 And we have just seen the problems involved in certain similar cause/similar effects arguments ((36), (42) and (44)). Lloyd (1966, esp. pp. 438-9) quite rightly points out that most of the objects of early Greek inquiry were such that direct empirical evidence could not be attained at that time (this applies not only to astronomy and meteorology but much biology too); hence such tenuous connections between observation and theory were unavoidable.51

48 And see note 34.
49 This potential for the same evidence to lead to contrary conclusions is perhaps best demonstrated by the use of menstruation, by Parmenides, as evidence that women are hotter than men (Arist. Anim. 648a29-31 (28A52)), but, by the author of On Regimen 1, as evidence that women are colder (34 (Littré VI 512)) (cf. Lloyd: 1966, p. 58). And sometimes the same evidence can be explained by means of another theory – eg. (31) could also be explained by the following: “A person who blows out air does not move the air all at once, but blows through a narrow opening of the lips, and so he breathe out just a little air but moves much of the air outside his body, in which the warmth from his body is not apparent because of its small amount” (Ps-Arist. Prob. 964a13-6; tr. McKirahan: 1994).
50 Such features of Presocratic methodology as these may have prompted early criticism, such as that found in Nature of Man 1 (Littré VI 32).
51 A point that applies a fortiori to experiment (Lloyd: 1991, pp. 77-9).
It is one thing to put casual observations forward in support of a theory, it is another to devise a deliberate test for that theory. So were the theories of the first philosophers tested? Almost certainly not. This is firstly suggested by the absence of experiments by the first philosophers. For our purposes the salient feature of an experiment is its *deliberateness*. In this respect experiment is essentially the same as the kind of observations that would be required to verify Anaximenes’ theory of earthquakes in the following:

Anaximenes says that the earth, through being drenched and dried off, breaks asunder, and is shaken by the peaks that are thus broken off and fall in. Therefore earthquakes happen in periods both of drought and again of excessive rain; for in droughts, as has been said, it dries up and cracks, and being made over-moist by the waters it crumbles apart (46: Arist. *Meteor.* 365b6-11 (A21); tr. Kirk: 1983).

The point is that if Anaximenes wished to test his theories, then he would have put a glass of water outside on a cold night to see what happens (if his identification of cold with density were correct the water level would reduce) (Cornford: 1952, pp. 6-7). And he would have made a nuisance of himself at the harbour asking merchants if they had experienced earthquakes; and if so, what the weather was like. Yet there is no evidence that any Milesian, or Xenophanes, made any kind of experiment at all. And the fact that Anaximenes held such a clearly empirically falsifiable theory as that in (46) is positive evidence against any concern to test scientific theories, at least for the Milesians (on Xenophanes see ch. 3).

Finally, did a theory stand or fall according to the empirical support? The lack of concern to test theories already suggests that they did not. But there is also the fact that most theories seem to have been put forward without any empirical support at all. There is, of course, the possibility that this is due to the incomplete accounts of the doxographers. But, all things considered, it is most likely that empirical support was simply not required for a theory to be proposed.

---

52 I should emphasise “for our purposes” since this is by no means the essential feature of experiment for the purposes of science – this is “the isolation of a certain phenomenon in its pure form, for the purpose of studying it systematically” – eg. isolating the motion of bodies from friction and air resistance, as far as possible, so as to study the ‘pure’ motion (Sambursky: 1956, p. 233).

53 If ‘experiment’ is to be taken in this sense I have to agree with Burnet (1945, p. 27; 1929, p. 255) that Empedocles experimented with the *klepsydra*. It has been argued that even if the point of Empedocles analogy with the *klepsydra* was, as Burnet claims, to demonstrate that air is a substance, it would still not strictly be an experiment since this is inferred from the normal use of the *klepsydra* which Empedocles just happened to observe (cf. Cornford: 1952, pp. 5-6). This is not strictly true. The normal use of the *klepsydra* is as follows: place it in the wine barrel, then hold your hand over the hole at the top. As simple as Empedocles’ experiment was, it did require a *deliberate* deviation from the normal use of the device – ie. hold your hand over the hole at the top, then place it in the wine barrel. Anaxagoras may also have ‘experimented’ in our weak sense by inflating bladders (Arist. *Phys.* 213a25-8 (59A68)). Consequently, the conclusion that theories were not tested does not apply to all Presocratics.
So observations were used by the first philosophers. Some of these observations were used as evidence for their theories, but not all – this was only one use of observation. Ultimately we can never know how much observation was used: the surviving record of observations could be a small fraction of those that were actually made; and surely some observations went unrecorded. The connection between observation and theory was invariably tenuous, although Xenophanes’ use of empirical evidence comes much closer to modern standards than that of the Milesians. Furthermore, their theories were probably never empirically tested, nor did a theory stand or fall according to the empirical support. (It is these last two points that mean, I believe, that the first philosophers cannot be classed as scientists from a methodological viewpoint.)

We should, finally, consider the use of a priori argument. Again some a priori reasoning was used, but probably not much. And, as with empirical evidence, a theory almost certainly did not stand or fall according to the success of this reasoning. Indeed, a theory probably did not have to have either empirical or rational support to be proposed. So can any kind of method be detected in all this? The most plausible conclusion seems to be that these philosophers would simply use whatever works: that is, if something seems useful to persuade others of a theory, use it; but if nothing comes to mind as a ground for the theory, that’s no reason not to propose it. And a ‘whatever works’ policy cannot strictly be described as a method.

One thing that seems to count against such a ‘whatever works’ policy is the absence of any appeal to divine revelation by the Milesians or Xenophanes. We have seen that in the Iliad divine revelation was a viable source of information about things that mortals had not experienced, or could not experience, for themselves. But does the absence of any extant record of an appeal to divine revelation mean such appeals were not made? I believe it does. We do not just have an argument from silence here. Many of the doxographers on the Presocratics were Christian, and there concerns principally religious. Consequently, we would expect any appeal to divine revelation to be just the sort of thing that these doxographers would be most eager to record. Furthermore, it is only to be expected that a move away from reliance on divine revelation would go hand in hand with the move away from referring to the gods in attempts to explain this puzzling world. Finally, there is some suggestion, in his more explicitly epistemological fragments and his theology, that Xenophanes denounced appeals to divine revelation (see ch. 3). So the Milesians and Xenophanes most likely made no appeals to divine revelation as support for their theories. This may, however, simply mean that such appeals would not be believed by whoever these philosophers were trying to convince of their theories. So we must now consider just who such an audience might have been.

54The role of persuasiveness should not be overstated, however. For example, Xenophanes conceptual arguments for the nature of god were probably based on the conception of god he believed everyone should have, rather than the conception that his audience did have. But, for any such conceptual argument to be persuasive, you have to start with the same conception as your audience.
THE CRITICAL TRADITION

The idea of a critical tradition has often been attributed to Greek philosophy in general and the Milesians in particular; most enthusiastically by Popper (1970, pp. 147-51). The central feature of this tradition, for Popper, was that its participants not only tolerated criticism of their theories, but actively encouraged it. He rightly notes an important implication of such a critical tradition – the participants in such a tradition must accept that their own theories are not final or certain truths, but hypotheses, conjectures, or guesses that are capable of being improved upon (p. 150). Now, the Milesians, and most other Greek philosophers, do seem willing to criticise their predecessors, or at least present contrary theories.55 If this occurred within a school, it would indeed suggest a critical tradition in Popper’s sense since a master that did not tolerate criticism of his theories would use his authority to quell such criticism. But if there simply were no school, hence no authority of a master to be wielded, then a philosopher could freely criticise his predecessor whether his predecessor liked it or not. And there simply is no apparent reason to assume that there was a Milesian school.

This still leaves a critical tradition in a weaker sense: the willingness within a culture, or part of a culture, not to be criticised, but to criticise. Even this weaker tradition suggests the absence of any strong authority in the given area of concern – in this case, questions of philosophy and science. Hence the rejection of the authority of the religious/mythical tradition, at least in relation to the subject matter of philosophy and science, seems to be presupposed by this critical tradition. Furthermore, it seems impossible for such a religious tradition to be rejected, even partially, by just three people. There was, then, presumably a reasonably large segment of Milesian society participating in this rejection; and this same segment must have also been actively interested in the new theories presented to replace that tradition.56 So, in the absence of authority, and with sufficient public interest, we would expect the work of the first philosophers to be open to the scrutiny and criticism of a reasonably large public.

This weaker form of a critical tradition is, then, quite sufficient for some kind of support to be given for at least some theories: if one has no authority to fall back on, and there are enough people out there willing to criticise what you say (whether you like it or not), you must sometimes be forced to argue your position. Furthermore, with no method of research or

55Anaximander is assumed to have criticised Thales because he replaced water, as the ὕδωρ, with his ἥματος; and water, as the support of the earth, with his similarity argument. We have already seen Anaximander’s criticism of making a definite element such as water the ὕδωρ (cf. McKirahan: 1994, p. 35; Lloyd: 1970, p. 20). His criticism of water as the support of the earth is taken to be that we must ask what holds up the water, and what holds up whatever holds up the water, and so on ad infinitum (pre-empting Arist. Heavens 294a33-4 (A14)) (McKirahan: 1994, p. 40; Lloyd: 1991, pp. 153-4; 1970, pp. 20-1; Popper: 1970, pp. 134-5). However, it is quite possible that Thales thought of water as extending down indefinitely or even infinitely – which would mean that the answer to ‘what supported the water?’ would be ‘more water’. This still results in an infinite regress but it is not so clearly vicious. Or, more simply, Thales might have thought of the water as the bottom, hence the question simply doesn’t apply (cf. Furley: 1989/1, p. 16).

56Furthermore, the very nature of Milesian theories made them readily intelligible to all since they could always be related back to the familiar and every day (Vernant: 1982, p. 107).
proof pre-existent, you would use whatever works, or rather whatever you think will work. However, at such an early stage of this kind of inquiry, probably very few criticisms were all that compelling; and, as Aristotle points out, “we are all inclined to direct our inquiry not by the matter itself, but by the views of our opponents; and, even when interrogating oneself, one pushes the inquiry only to the point at which one can no longer find objection” (Heavens 294b7-10; tr. Burnet: 1938). So these early philosophers were not always forced to argue their position, let alone to argue with rigour.57

In short, the existence of a critical tradition in its early stages fits well with the picture painted above of the ‘method’ of the first philosophers: some theories are argued for, but many are not; furthermore, the arguments are something of a mixed bag, and they lack rigour. Finally, the rejection of appeals to divine revelation makes sense in this picture.58

THE NEW APPROACH

From our review of the limited material available on the methodology of the first philosophers, we can see that there was not a complete departure from the traditions represented in the *Iliad*. I have argued that there probably was some use of direct experience in the formulation of their cosmologies. Indeed, direct experience was probably used as much as possible: it was the subject matter of the first philosophers that necessitated a diminished role for direct experience, not any disposition against it. Furthermore, we saw that conclusions inferred from observations could constitute knowledge in the *Iliad*, so, again, the use of empirical evidence to support a theory about something unobserved is not without precedent. However, in the *Iliad*, although what was inferred was not observed, it typically could be observed; the inferred theories of the first philosophers were invariably about things unobservable. Furthermore, there seems to be little similarity between the kinds of inferences made. For example, no theory of the first philosophers was claimed to be the only possible explanation for the supporting observations; nor is there anything like a similar cause inferred from similar effects in the *Iliad*. But the most radical development of the first philosophers is the introduction of a priori reasoning. There is simply nothing comparable to this in Homer.

In short, the first philosophers essentially, but not without some modification, retained the empiricism of Homer, but augmented this with some ad hoc rationalism. And the abandonment of divine revelation as a source of information would have produced the need for some augmentation of the remaining traditional means for inquiring about things unobservable.

57Furthermore, Lloyd (1987, pp. 85-91) suggests that the early philosophers might have presented these theories in public competitions. And if this were the case, ostentatious appeals to originality, with little or no supporting argument, may have been sufficient crowd pleasers to dissuade criticism.

I have treated the Milesians and Xenophanes together in this chapter. But one thing that does distinguish Xenophanes from the Milesians is that explicit epistemological remarks have been attributed to him. I will examine these in the next chapter, and there I hope to show that these remarks principally constitute a reaction to the variety of contrary positions of the Milesians, and the absence of any discernible method by which to decide between these different positions. Specifically, he develops a scepticism about the possibility of knowing things beyond direct experience, and even some things that seem to be sanctioned by direct experience; and he clearly desires greater rigour in the inchoate ‘methods’ of the Milesians.
Chapter 3

WHAT XENOPHANES SAYS ABOUT ALL THINGS

Only a handful of fragments in which Xenophanes appears to make explicit epistemological statements have survived. The fragment of central concern is as follows:

No man has seen the clear truth nor will anyone know about the gods and what I say about all things. For even if, at best, someone successfully said what is brought about, nevertheless he himself does not know: but opinion is allotted to all (47: Sext. M 7.49 (21B34)).

Most commentators take this to represent some kind of scepticism. The main areas of dispute are the scope of the scepticism and the reason for it. Hussey (1990, pp. 22-4), Barnes (1979, pp. 139-40) and Fränkel (1974, pp. 128-30) claim that his scepticism is limited to the theological and scientific - things beyond the scope of our common sense beliefs (and something like this seems to be Sextus' position (M 7.50-1)). For want of a better term, let us call this theoscientific scepticism. Within this camp there is a split. Fränkel and Hussey argue that Xenophanes is sceptical on scientific and theological matters because these go beyond the information of the senses, or of experience - in other words, he presented the first empiricist critique of knowledge. Barnes, however, argues that for Xenophanes knowledge requires an appropriate cause that links up with the actual nature of the object of the belief - that is, if I know x, my believing x results from those features of the world that make x true, and by no other extraneous features such as the beliefs of my parents or community. Finkelberg (1990, p. 134) claims that Xenophanes' scepticism is limited to just scientific matters, but does not apply to theology because his theology derives from a priori

1Following Verdenius (1953, p. 197).
2τευχω is allotted normally means make, but in Homer it often refers to what the gods have fashioned for mortals (Il. 4.84; 10.6) - i.e. have allotted to mortals. So the meaning of δόκος δ' ἐπὶ πᾶσιν τέσσερα but opinion is allotted to all could be that δόκος is our human lot - it is "the state of awareness men possess in virtue of their existence as mortal beings" (cf. Homer (Od. 18.130-7); Archilochus (Sext. M 7.128 (Diehl fr. 68)); and Parmenides (127)) (and a similar meaning is suggested for (51) (Lesher: 1992, pp. 179, 181)). This usage makes the most sense of this troublesome word. But we should note that this would make πᾶσιν all men or people, not all things (Lesher: 1992, p. 159; and see below).
reasoning and he was not sceptical about a priori reasoning. Finally, Lesher (1983/1, p. 32) and Guthrie (1962, p. 398) argue that his scepticism is general – he is sceptical about knowledge of every kind – and in this he is simply accepting the poetic tradition that knowledge is the preserve of the gods.

I intend to examine these different positions on the scope of Xenophanes’ scepticism, and his reason for it. I will also examine the nature of his scepticism. I will argue that for those things we cannot know about we can still determine that some beliefs are actually closer to the truth than others. Furthermore, this verisimilitude can be improved on over time. This improvement is principally, but not exclusively, achieved by the accumulation of more and more empirical evidence. Finally, I will consider, briefly, some criticisms of the view that Xenophanes was really a sceptic at all.

OF WHAT DOES XENOPHANES SPEAK?

The first step in attributing any form of limited scepticism to Xenophanes is to take the phrase “about the gods and what I say about all things” (47.2) to mean ‘about the gods and about all the things that I am presently saying’. This suggests that (i) this fragment is a preface to a poem, and (ii) the scepticism of the fragment is limited to the scope of this poem (Barnes: 1979, p. 139). A theoscientific interpretation then adds that the poem is only concerned with the theological and scientific. But it is not evident from (47) itself that what Xenophanes was talking about in the alleged poem was only ever scientific when it was not theological. And, as is the wont of fragments, we do not have the remainder of the poem, if there was such a poem, to give us any clues. That the postulated poem was limited to science and theology can only be inferred from the other fragments and testimonia attributed to Xenophanes. The most original and impressive of Xenophanes’ work that has survived is theological, and there are a number of fragments and testimonia on matters that were the typical concerns of Ionian science; such things as astronomy and meteorology (and there are some obscure fragments that were at least taken to be remarks about a material ἀρχή). However, this does not exhaust the scope of Xenophanes’ work. Indeed, the larger fragments of his poetry concern themselves with an array of matters neither scientific nor theological.

Xenophanes is critical of what is valued in his society. He is critical of athleticism being valued higher than poetry (or perhaps philosophy):

What if a man win victory ... at Olympia ... he will not deserve [the honour etc.] so much as I do. Far better is our art than the strength of men and horses (48: Ath. Schol. 10.413f-414b (B2.1-12); tr. Burnet: 1945)!

And he is equally critical of the leading men of Colophon:

3Such a poem, named περὶ φύσεως On Nature, was written by Xenophanes according to Stobaeus (Anth. 1.10.12 (A36)), Crates (Il. 21.196 (B30)), and Pollux (Voc. 6.46 (B39)).
4Or ἀρχὴ (see ch. 2 note 2).
Learning useless soft habits from the Lydians...they went to the town square in purple robes,...haughty, with elegant hair-styles, drenched in the perfume of synthetic ointments (49: Ath. Schol. 12.526a (B3); tB).

He also shows a concern for the etiquette of a good symposium: “Now is the floor clean, and the hands and cups of all; one sets twisted garland on our heads, another hands us fragrant ointments on a salver” (Ath. Schol. 11.462c (B1.1-3); tr. Burnet: 1945; cf. 11.782a (B5)). So the scope of Xenophanes’ concerns clearly extends beyond the theological and scientific. It is also clear that there is no intimate connection between theology and science such that any poem concerning the gods would only include scientific considerations in addition. For in the fragment from which the last quote was taken Xenophanes goes on to praise those who after drinking do not sing of Titans and Giants – those fictions of the men of old –...but to give heedful reverence to the gods is ever good (50: Ath. Schol. 11.462c (B1.21-4); tr. Burnet: 1945).

In short, even if we assume that (47) is a preface to a poem, the scope of Xenophanes’ work in general provides no evidence that the things which Xenophanes discusses in that poem are all theological and scientific, and not matters of etiquette, social criticism, or anything else. So even if we were to accept that (47.2) limits the scope of Xenophanes’ scepticism, we have no prima facie reason to suppose that it is limited to theological and scientific matters.5

But does (47.2) at least tell us that Xenophanes’ scepticism has some limits, even if it does not tell us just what these limits are? Not really. ἄσοσα λέγω what I say need not mean what I am presently saying (in this particular poem), it could also mean what I habitually say (in all my poems, whenever I speak, or the like), depending on whether the present tense here is genuinely present or habitual (Hussey: 1990, p. 19).6 Furthermore, (47.2) is

5There is a further point made by Barnes (1979, pp. 139-40) and Frankel (1974, p. 129) in support of a theoscientific interpretation of Xenophanes. They find the following passage from a treatise in the Hippocratic Corpus to have connections with (47) (“too close to be coincidental” according to Barnes (p. 139)), and the reference to the scope of this author’s scepticism is more clearly scientific:

If anyone were to express his opinion about the condition of these [insoluble mysteries..., for instance the mysteries of heaven and of the regions below,] it would not be plain either to the speaker himself or to the audience whether the statements were true or not. For there is no test the application of which would bring certain knowledge (Anc. Med. 1 (Littre I 572); tr. Frankel: 1979).

The author of this, shortly afterwards, announces that some knowledge has been attained “by inquiring for a long time”, thus, again, echoing Xenophanes (59). But Finkelberg (1990, pp. 134-5 n. 84) notes that to make a parallel between this passage and (47) (“too close to be coincidental” according to Barnes (p. 139)), and the reference to the scope of this author’s scepticism is more clearly scientific:

6Lesher (1992, pp. 167-8) argues against the second reading because Xenophanes speaks of some things (everyday matters) as if they were common knowledge. But this seems inconsistent with Lesher’s claim that (47) allows strong conviction on religious matters (see below). It seems to me that speaking of everyday matters as if they were common knowledge
not the only phrase in (47) that is suggestive of the scope of Xenophanes' scepticism: he also says that "δόκος opinion is allotted to all" (47.4b). πᾶς all is not qualified here, as in (47.2), suggesting a general reference. And δόκος is being opposed to οἶδα know. So Xenophanes could mean that all of humanity lacks knowledge, and what we take to be knowledge is mere belief. This suggests general scepticism.

Against the use of (47.4b) as evidence for general scepticism, πάντα in this phrase could mean all these [aforementioned] things – that is, it could refer back to 'all the things that I am speaking of' (47.2). This would eliminate the unambiguously general reference of πάντα, hence (47.4b) would no longer provide evidence for general scepticism (nor would it provide evidence for limited scepticism, theoscientific or otherwise: the scope of "what I say about all things" remains ambiguous). Franke (1974, p. 128) argues that πάντα refers back to (47.2) as follows: "both ἐπὶ [to] and τέτυκτην [is allotted] speak in favour of the interpretation of πάντα as neuter, so that it corresponds to the neutral τῶν [all things] in line 2 [of (47)]". I can only assume that the basic idea in his argument is that a phrase like 'is found/constructed over all things' is a more natural translation of ἐπὶ πάντα τέτυκτην than 'is found/constructed over all people'. But, firstly, this seems to simply ignore the possible translation of the passive of θέω as is allotted. And, secondly, even if we accepted the conclusion that πάντα is neuter, this is simply not enough to conclude that πάντα refers back to "what I say about all things": this leaves it quite ambiguous between all things and all these [aforementioned] things.

But even if we do accept that πάντα refers to all things or all people in general, (47.4b) does not have to mean that there is only belief and no knowledge at all (cf. Hussey: 1990, p. 21). The natural reading of (47.3-4a) is that true belief is not sufficient for knowledge (assuming that what is said is believed): there is a further component. And it is only if this further component is unattainable for every subject that we can reasonably interpret (47.4b) as expressing the conclusion that there is only belief, and no knowledge.

is consistent with scepticism on such matters for just the same reason that strong religious convictions are consistent with scepticism "about the gods".
We should note that if ἀσσα λέγω does mean what I habitually say, the scope of Xenophanes' scepticism would have to extend beyond the theoscientific, at least to values, simply because he did write about things neither scientific nor theological.

7A 'b' in this context denotes the last half of the line referred to, similarly an 'a' denotes the first half – the line being divided into these halves by some punctuation such as a full stop, or a colon as here.

8See note 2.

9Xenophanes relates his non-evident cosmological accounts in terms of "all things" (Sext. M 10.313 (B27); Philo. Phys. 125.30 (B29); Hippo. Ref. 1.14.3 (A33)). So even if πάντα does not refer back to (47.2), its scope could still be limited to things scientific – that is, it may only refer to the non-evident explanations of the nature and origins of all things (Lesher: 1992, p. 168). But this supports Finkelberg's position – that the scope of Xenophanes' scepticism is limited to just the scientific (see below) – better than Franke's.

10And we can reasonably assume this, not only because Xenophanes shifts without comment from speaking (λέγω said) to thinking (δόκος) in (47), but also because thoughts were freely spoken of as words in ancient Greek (eg. Il. 1.541-50) (cf. O'ni: 1954, pp. 13, 67-71).
SEEING IS KNOWING

So Xenophanes' own references to the scope of his scepticism are somewhat ambiguous, and if any light is to be shed on the subject, we must look to Xenophanes' reason for his scepticism. If we have read (47.3-4a) right, to seek out the reason for Xenophanes' scepticism is just to seek out the further component to knowledge, besides true belief, that is unattainable for anything within the scope of this scepticism. Fränkel takes this further component to be direct observation. The essential argument is simply that οἶδα means "knowledge based on observation" in (47) (Fränkel: 1962, pp. 335-6; cf. Guthrie: 1962, p. 395). οἶδα usually referred simply to knowing, however acquired, by Xenophanes' time, but it still retained an older sense of knowing by seeing. εἶδω, however, Fränkel argues, unambiguously means see. "No man εἶδω has seen the clear truth nor will anyone οἶδα know" does not appear to be referring to two different epistemic relations, rather εἶδω and οἶδα are being used interchangeably; so, he argues, it can be reasonably assumed that εἶδω is being used by Xenophanes to bring out the older sense of οἶδα - knowing by vision or perception. The upshot of this is that the missing component for knowledge of the gods and everything else of which Xenophanes spoke is simply direct observation. And for Fränkel this is not just a necessary condition (along with truth and belief), but also sufficient for knowledge (presumably, causing the belief and guaranteeing its truth) - that is, knowledge is identified with sense perception (p. 130).

However, it has been well established that there is a false premise in Fränkel's argument: εἶδω does not unambiguously mean literally see - even in Homer εἶδω can mean seeing a dream (Od. 19.567) or seeing in one's mind (Il. 21.61) (Lesher: 1992, p. 158). Furthermore, Lesher (1983/1, p. 24) points out a problem with translating εἶδω as literally seeing in (47). What is seen is τὸ οὐκ ἔχει τὸ αἰσθήμα to the clear truth: only propositions are true, but propositions cannot be literally seen. However, against this last point, it has been argued that τὸ οὐκ ἔχει can also mean something more like 'in detail' or 'exact' (Fränkel: 1974, p. 127), and one could literally see such and such in detail simply because, in this translation of τὸ οὐκ ἔχει, what is 'seen' is not limited to a proposition, but could be a physical object.

However, even if εἶδω does not mean literally see in (47), the use of οὐκ ἔχει does suggest some connection with direct experience. Lesher (1992, pp. 156-7) notes a number of texts where not knowing οὐκ ἔχει means "lacking sure or reliable information or understanding, resulting from a lack of direct access, exposure, or experience". This does suggest that a connection between knowledge and direct experience may have been meant. But, in the final count, this connection between knowledge and experience is not guaranteed by the text of (47) since εἶδω does not have to mean literally seeing.

As additional support for this empirical basis of Xenophanes' scepticism, Fränkel (1974, p. 123; 1962, p. 336) cites a further fragment:

11 Or σοφός, or σοφῶς.
12 One text where knowing οὐκ ἔχει does not result from direct experience is where Agamemnon is said to know οὐκ ἔχει about the battle of Thebes, even though he was not there himself (Il. 4.404-8) (see ch. 1 note 34).
Method and epistemology in the early Presocratics

As many as have appeared for mortals to look upon ... (51: Hero. Quant. 16.22 (B36)).

This he takes to mean that Xenophanes sharply distinguished between the observable and the unobservable; scepticism, then, being limited to the latter. Fränkel has no doubts about this conclusion, but Guthrie (1962, p. 397) notes that an element of Xenophanes’ astronomy does cast some doubt on it:

The sun moves on indefinitely, but seems to move in a circle because of the distance (52: Aetius 2.24.9 (A41a); cf. Her. Hom. 44.5 (B31)).

The straight path of the sun implies that observation can be deceptive. This may also be suggested by the relativity of taste (53). These strongly suggest that scepticism is not neatly confined to the realm of the unobserved, so direct observation and knowledge can hardly be identified. Furthermore, (51) is very weak evidence that Xenophanes drew a sharp distinction between the observable and unobservable (let alone that scepticism is limited to the latter). It does not even constitute a complete sentence, and it could be seen as part of the statement of various theses. For example, it could be part of the thesis that it is not just the practical limitation of gathering enough evidence that keeps us from knowing about unobservable things: we will remain ignorant no matter how many observations are made (Lesher: 1992, p. 179).

In short, the only arguments for identifying Xenophanes’ scepticism with the unobservable that we are left with are that εἰδω typically, but not necessarily, means literally see, so could be drawing out the sense of knowing by seeing in οἴδα; and not knowing σαφές typically, but not necessarily, implies not knowing because of a lack of direct experience. This is certainly some evidence for Fränkel’s thesis. But against this, certain fragments strongly suggest that Xenophanes’ scepticism does extend into the observable. This last point leads us to Barnes’ account of the reason for Xenophanes’ scepticism.

WE KNOW ONLY WHAT THE WORLD TELLS US

Barnes (1979, pp. 142-3) considers the missing component for knowledge, over and above true belief, to be an appropriate cause of the belief that links up with the actual nature of the object of the belief – that is, a true belief is knowledge if whatever makes the belief true is also what causes us to believe it. Normally, this would mean that our senses provide us with knowledge – for example, I believe there is a computer in front of me because I can see a computer in front of me, and it is because there is in fact a computer in front of me that I see the computer. But our senses can deceive us, and this is precisely when something extraneous to the object of

13 Although these fragments do cast doubt on the empirical basis for Xenophanes’ scepticism, they do not imply that his scepticism is not limited. However, Guthrie’s (1962, pp. 396-8) argument for interpreting Xenophanes’ scepticism as general seems to rely solely on casting such doubt on the clear restriction of scepticism to the unobservable.
belief causes our perception – for example, I might believe there is an oasis in front of me because I ‘see’ an oasis, but this perception is caused by the effects of heat on both the air and my resistance to suggestion, not by the existence of an actual oasis. This causal component of knowledge, Barnes argues, is exemplified by Xenophanes’ anthropological evidence that people make their gods in their own image (32), and the following fragment:

If god had not made yellow honey, they would say\(^{14}\)
that figs are much sweeter
(53: Hero. *Speech* 946.23-4 (B38)).

And, significantly, (53) may present an example of our senses failing to provide knowledge.

Both the relativism of (53) and the anthropological evidence in (32) are, or, more precisely, imply, explanations of beliefs about the nature of figs and gods that involve more than just the actual nature of either figs or gods. In (53) the taste of figs is *part* of what causes our belief about their sweetness, but so is something completely extraneous to figs – the taste of yellow honey. In (32) the true nature of god is presumably not even partially involved in what causes our anthropomorphic beliefs about the gods, this is caused entirely by the nature of mortals. Let’s consider (32) first. The anthropological evidence of (32) naturally suggests that there is something wrong with these varying beliefs in anthropomorphic gods. But the argument is quite persuasive on an intuitive level – that is, one does not need to have *analysed* how the argument works for it to work.\(^{15}\) So the fact that Xenophanes *used* this *particular* argument does not mean he derived from it the *general* epistemological theory that knowledge requires an appropriate cause, even though the argument does suggest this theory on analysis.

As for the relativity statement in (53), presumably, there was some *general* point to it, and probably, but not necessarily, some philosophical point. But there are a number of philosophical positions that could be supported by reference to the relativity of taste. Xenophanes may have wanted to show that the information of our senses in general is relative to certain conditions, such as past gastronomical experience, which, in turn, has been used to argue for both general scepticism and the relativism of what is true. Or Fränkel (1962, p. 333) may be right: he suggests that the relativity of taste was used to show that human beings do not have

\(^{14}\) θαυκω *say* could be just as plausibly translated as *think*. But I do not believe anything hangs on this choice (see note 10).

\(^{15}\) The general form of such an argument is as follows: if the properties attributed to \(x\) vary “systematically with the lifestyles or customs or habits of different people, then \(x\) has property \(F\) (or \(G\) etc.)] may best be accounted for by the various features of these different lifestyles” (Annas: 1985, pp. 161-2). Annas suggests that (32) (and (33)) do not argue for the definite conclusion of a non-anthropomorphic god, but rather for scepticism about the exact appearance of god or gods. This may, indeed, be all the argument *should* conclude. In favour of the thesis that Xenophanes did in fact only reach the sceptical conclusion, we, of course, have the reference to the gods in (47); but against this, we have definite statements of the non-anthropomorphic nature of Xenophanes’ god (Clem. *Misc*. 5.14.109.1-2 (B14,23)) (cf. Reiche: 1971, p. 92).
knowledge of absolutes – the sweet itself – but only of relative facts – of more or less sweet. Or Xenophanes’ point may have been less general. Taste may have been the only sense that he thought was relative, and his intention might have been to argue for some limited scepticism – such as the kind Barnes had in mind. Or he may have been concerned with the conceptual analysis of relational properties, taste being an example, while being quite clear that not all properties are relational. Or (53) may have contained a moral message – if men had not indulged in luxuries such as yellow honey, they might have been satisfied with the more moderate fig (cf. Plato, Rep. 372c4-373e2) (Lesher: 1992, p. 182). And so on. However, not all these possible interpretations of (53) are plausible when we attempt to relate this fragment to other elements of Xenophanes’ thought. The moral interpretation is reinforced by his disdain for luxury in (49). And the idea that (53) contains some critique of perception is suggested by (52).

We have already noted that (52) suggests that not all observations provide knowledge. But why does Xenophanes question the way things seem to be here? The import of (52) could be that “as bodies move across the sky and approach the horizon they may appear to curve downward in their paths” (Lesher: 1992, p. 218 n. 59), so this is what is happening with the sun. This constitutes a correction of what we see: we are being told not to allow conditions that can produce an illusory effect in other cases to influence our interpretation of what we see in the case of the sun.¹⁶ This fits with Barnes’ causal theory: our belief that the sun moves in a circle is caused by factors other than the sun’s actual motion – namely, the effect of the horizon on our perception. However, we must be cautious. What we are told about the reason for this apparent rejection of the way things seem – “because of the distance” – is far from clear.

In short, there are problems with deriving a causal theory of knowledge from (32), (52) or (53) individually. However, the fact that all of these can be interpreted as entailing such a theory is about as strong as the evidence gets in Presocratic exegesis. Hence it is plausible that Xenophanes’ reason for his scepticism was that not all beliefs are appropriately caused. And since (52) and (53) clearly show his willingness to accept the consequences of this theory for the veracity of perception, we must accept that direct experience is not sufficient to attain knowledge, although it is probably capable of attaining it most of the time, and it may even still be a necessary condition for knowledge.

It is important to be clear just where Fränkel and Barnes differ. Barnes’ causal theory is contrary to the strict identification of knowledge with sense perception, but it still presupposes a strong role for sense perception in the acquisition of knowledge. So we should be clear that if the

¹⁶But ἀπόστασις distance can also mean departure from – in this case departure from our sight. The point would, then, be that we should not infer that there is only one sun because a similar object reappears in the east to that which departs in the west (Lesher: 1992, p. 218 n. 59). This interpretation fits some of what precedes it in Aetius – the claim that there are “many suns and moons” – but it does require us to add to the reason given for the apparent circular motion – ie. ‘because of the departure from our sight in the evening and the reappearance of something similar the next morning’. This interpretation of (52) is not so much a correction of what we see as a criticism of an inference that is drawn automatically from what we see: we are being told that we do not see enough of ‘each’ sun to know that they are all one and the same sun.
above interpretation of (52) is right, this still does not imply a blanket scepticism of the senses – it just means that sometimes we need to be careful about how we interpret our perceptions. And if we are to interpret (53) in relation to (52), then this probably constitutes no more than another specific example of our need to take care in interpreting our perceptions.

These cautions could be a direct reaction to the uncritical use of direct experience by the Milesians (see ch. 2). For example, Xenophanes may have perceived that, although the horizon appears circular, we must not interpret this as showing that the earth is circular, since the horizon need not be the edge of the earth. However, he definitely gave the earth depth (63), and almost certainly agreed that it was both flat and stationary. So he seems to have stuck with uncritical direct experience on these points.

To counter-balance the criticisms of sense perception found in (52) and (53), we should note that various fragments present a positive regard for sense perception ((63); Eust. Il. 11.24 (B32); and possibly (51)). And the following also suggests that perception can provide knowledge:

He sees as a whole, he thinks\(^\text{17}\) as a whole, and he hears as a whole (54: Sext. M 9.144 (B24)).\(^\text{18}\)

If knowledge derives at least in part from observation, then (54) does mean that Xenophanes’ god has greater knowledge than mortals. But mortals, although not seeing or hearing as much as god, can still see and hear. So if (54) implies anything about god’s knowledge, it allows mortals some empirical knowledge. But what if Xenophanes did deny that seeing and hearing provide any knowledge? Then the attribution of superior seeing and hearing to his god would appear to be a trivial point and one hardly fitting the god that, otherwise, Xenophanes seems to have revered. So it seems that Xenophanes must have accepted that seeing and hearing provide knowledge. This point could be used as support for Fränkel’s position as much as Barnes’, but the above considerations still tell against the simple identification of knowledge and perception. However, against this point, we should note that Xenophanes’ criticisms of the anthropomorphism of the gods means that we cannot simply assume that human and divine sight are essentially of the same kind (see ch. 1). Indeed, (54) demonstrates that they certainly differ in some respects. Consequently, it remains possible that divine sight is such that it provides knowledge, yet human sight is not.

**AS SURE AS GOD IS IN HIS HEAVEN**

There is one more interpretation of limited scepticism that we should review. Finkelberg (1990, p. 134) argues that Xenophanes was not a theoscientific sceptic, but merely a scientific sceptic – that is, he was not sceptical about his theology at all. He was sceptical about scientific matters

\(^\text{17}\) vosw thinks equally embraces the meaning of perceiving (Fränkel: 1973, p. 331). Hussey (1990, p. 27 n. 44) claims that vosw is being used here in the sense “involving the noticing and understanding of what is perceived” (cf. Fritz: 1974, p. 33; and see ch. 1).

\(^\text{18}\) This standard reading of ‘he sees as a whole etc.’ is, perhaps, not guaranteed by the text, but it is supported in the doxography (Hippo. Ref. 1.14.2 (A33); DL 9.19 (A1)).
because of "the impossibility of ascertaining the truth of our inferences from the observed facts". But his theology escapes the taint of scepticism because in this he used *a priori* reasoning and "was aware of its character" (p. 136).

But Finkelberg's interpretation puts the only thing that seems to be explicitly placed inside the scope of Xenophanes' scepticism — θεοί the gods — outside this scope. A reply to this is that θεοί refers to *their gods* — that is, Homer's and Hesiod's — and scepticism is limited to conventional conceptions of the gods and to scientific inquiry. The use of the plural proves nothing here. Of course, Xenophanes refers to the conventional gods in the plural but, in spite of his apparent monotheism, he often speaks of gods (plural) in his positive religious remarks ((50) and (60))19. But if θεοί refers to the conventional gods, this makes (47) rather messy: if Xenophanes knew that his conception of god was true, then the conventional conception of the gods must be wrong. Hence, he would not be sceptical about this conception — he would not be in any doubt about its truth or falsity. In this case it would not be possible to 'successfully speak truly' (47.3) about these false gods. Finkelberg counters this by arguing that θεοί refers to Iris (the rainbow) (Eust. II. 11.24 (B32)), the Dioscuri (St. Elmo's fire)20 (Aetius 2.18.1 (A39)), etc., which Xenophanes tried to show were nothing more than meteorological phenomena; so "about the gods" = 'this class of meteorological phenomena commonly thought to be gods' and "what I say about all things" = 'what I say about all other such phenomena' (p. 146 n. 101).

Let us accept, for arguments sake, that we have evidence of sufficient use of *a priori* reasoning to suppose that Xenophanes appreciated the distinction between *a priori* deductive reasoning and *a posteriori* inductive reasoning.21 Why should this lead him to exempt his theology from scepticism? Presumably, because he was in some sense aware of the truth-preserving nature of deductive reasoning. But if he was aware of this, he was presumably also aware that this only means that the conclusion must be true if the premises are all true. Now, Xenophanes could have thought that his theological assumptions were necessary truths, hence immune to sceptical doubts, but there is no real evidence that he did. But if his premises could be doubted, so could his conclusions. In short, the use of *a priori* reasoning in his theology does not have to free theology from the scope of his scepticism, so we are left with little reason to take "no man ... will ... know about the gods" as anything but a statement that theology is, indeed, within the scope of this scepticism.22

---

19And (51) if ἕπαινον have appeared is translated they have revealed (eg. Barnes: 1979; but see below).
20A freak electrical phenomenon sometimes seen on ships' masts during storms.
21Besides the *a priori* reasoning we have already seen (in ch. 2), Finkelberg argues that other examples of his *a priori* reasoning can be found in Ps-Plut. Misc. 4 (A32) (pp. 138-46).
22Reiche (1971, pp. 89-101) presents an interesting contrast to Finkelberg. They both identify the gods with physical phenomena (although Finkelberg takes this to constitute a denial that these conventional gods are truly gods (p. 146 n. 101), Reiche does not (p. 92)). More specifically, Reiche takes these gods to be temporal cycles in nature such as the cycle of deluge and drying up (34) and the cycle of recreating the sun anew each day (Hippo. Ref. 1.14.3 (A33)) (p. 96). In direct opposition to Finkelberg, he then argues that the existence of the greatest god — which is the greatest 'period', Time — is inferred from *empirical* facts about
GENERAL SCEPTICISM

So what do the above considerations leave us with? Fränkel’s interpretation of Xenophanes’ scepticism – that he is sceptical of just that which is beyond direct experience – seems to be too simple. We have seen that there is good evidence for Barnes’ causal theory, and that Xenophanes was well aware that this involves problems for a crude empiricism. This still leaves us with a limited scepticism. But against these interpretations of limited forms of scepticism we must note that Xenophanes was often interpreted as a general sceptic in antiquity: we are told that Xenophanes was “the first to say that everything is unknowable” (DL 9.20 (A1); tr. Barnes: 1979), and that he “says that the senses are false, and together with them he also delivers a general attack on reason itself” (Ps-Plut. Misc. 4 (A32); tr. Barnes: 1979). And it is not impossible that general scepticism is the import of the straight path of the sun (52) and the relativity of taste (53). General scepticism may also be found in a further fragment where Xenophanes expresses doubt on a fairly ordinary matter:

By now have seven and sixty years
been tossing my thought about the land of Greece;
and from my birth there were twenty five to add to them
if I know how to speak truly about these things
(55: DL 9.19 (B8); tB).

(But such a doubt about exact age could well be “natural rather than ‘philosophic’" (Lesher: 1992, p. 168).)

But if Xenophanes was a general sceptic, what was the reason for his scepticism – all the reasons we have examined so far only support some kind of limited scepticism? It has been suggested that the reason is derivative of the poetic tradition of his time – this tradition supposedly being “that men could have no certain knowledge at all: that this was reserved for God” (Guthrie: 1962, p. 398). This is reflected in:

God knows the truth, but for all there is belief (56: Stob. Anth. 2.1.17 (A24); tr. Barnes: 1979; cf. Aug. CG 7.17).

Lesher (1983/1, pp. 26-34) attempts to flesh out Xenophanes’ reasoning in the following way. τετελεσμένον what is brought about (47.3) is often linked with speaking in Homer, as it is in Xenophanes. A true prediction via divination is one way in which someone might speak of what is brought about; and Xenophanes was critical of divination:

these lesser gods (p. 101). But why identify the gods with cyclical processes? Reiche’s argument for this is essentially that we are told that god doesn’t move and periodic motions are thought of as immobile (pp. 89-90). But, firstly, (20) makes perfect sense as a denial of locomotion, so it seems unnecessary to import such an obscure sense of ‘immobile’ as ‘cyclical process’ (which it is not clear existed before Empedocles (Simp. Phys. 157.25 (31B17.12))). Secondly, we are told that god (singular) doesn’t move (20), not the gods (plural), hence if Xenophanes was a polytheist, we still need only assume that his greatest god doesn’t move. Thirdly, the greatest god, the only one we are explicitly told does not move, lacks movement for a different reason than the lesser gods in Reiche’s account – time doesn’t move because it is not a thing, not because it is a cyclical process.
Method and epistemology in the early Presocratics

Xenophanes of Colophon, while asserting the existence of gods, was the only one who repudiated divination in its entirety (57: Cic. Div. 1.3.5 (A52); tr. Lesher: 1983/1; cf. Aetius 5.1.1 (A52)).

Indeed, Lesher sees Xenophanes' meteorological and astronomical theories as more attacks on divination than the traditional Greek gods themselves – for example, both the rainbow (Eust. Il. 11.24 (B32)) and St. Elmo's fire (Aetius 2.18.1 (A39)) are portents, as are the heavenly bodies. So, he argues, (47.3-4) constitutes a further denunciation of divination. This leads to a general sceptical conclusion because (i) it denies that knowledge can be revealed to us by the gods and (ii) knowledge was the prerogative of the gods – and since this is such an extensive poetic tradition of Xenophanes' time, it is quite reasonable not to find (ii) explicitly stated in (47).

Lesher's argument has a number of problems. Firstly, divination is far from the only way to speak of what is brought about. That this is what Xenophanes had in mind at (47.3-4) is, I take it, meant to be shown by the extensiveness of Xenophanes' concern with divination. However, even if Xenophanes' criticism of divination was as extensive as Lesher argues, it is too indirect as evidence that (47) should be interpreted as yet another example of this critique. Secondly, even if we allow that parenomenv evioph said what is brought about does refer to divination, divination is not the only way for the gods to reveal things to people, as we have seen (in ch. 1). Thirdly, we have also seen (in ch. 1) that mortals could attain knowledge for themselves in Homer: the only knowledge exclusive to the gods was limited to events in the distant past. So any scepticism about human knowledge deriving from this prerogative of the gods would also have a limited scope. In short, although Lesher puts forward a compelling argument that Xenophanes denounced divination, this simply does not provide a reason for general scepticism.

SOME MORE REMARKS ON SCOPE

So, in the absence of any other reason by which Xenophanes might have concluded general scepticism, some form of limited scepticism seems most plausible; and of the reasons for limited scepticism proposed Barnes' causal theory is the strongest candidate. If we accept this as the reason, can we now give a precise delineation of the scope of Xenophanes' scepticism? Presumably, scientific matters are within this scope. Probably theology is too, but this is not necessarily the case: inference from what Xenophanes may have seen as necessary truths could be an appropriate cause of theological beliefs (the necessity of the logical connections between the various properties of god being what makes them true) – that is, Finkelberg's position and Barnes' causal theory are quite compatible. But the scope also extends into the realm of empirical phenomena. And what about

23The claim that such a reference to divination was intended in (47.3) is helped slightly if we accept a valuative use of to µaλιστα at best – its meaning then being more like the best among men (Frankehl: 1974, pp. 126-7). This makes it a little more likely that (47.3) refers to seers, who were best among men at speaking of what is brought about. And this superiority was in part due to a special gift for divination (see ch. 1).
What Xenophanes says about all things

statements of morality and value, which we have seen were a major concern of Xenophanes? Presumably, his travels would reveal a relativity in these similar to the relativity of beliefs about the appearance of the gods (32). And, without knowing just what constituted an appropriate cause of a belief for Xenophanes, there may well be other things within the scope of his scepticism.

But maybe we can get a better delineation if we consider the motivation for his scepticism. What led him to epistemological reflection? The account of the Milesians in the last chapter provides a likely answer to this. Not only did we find a variety of contrary positions in their theories, we noted that there appeared to be no discernible method by which to decide between these different positions. Such a state of affairs would naturally lead to the acceptance of uncertainty in the subject matter of the Milesians, which was essentially scientific. If this is right, then the focus of scepticism is likely to be in the area that motivated this scepticism – the scientific. So a roughly scientific, if not theoscientific, scope seems most plausible after all.

SIMILAR TO THE REALITIES

Now that we have some idea of the reason why Xenophanes was sceptical on certain matters, and the scope of these matters, we should try to gain a picture of the nature of this scepticism. If we cannot gain knowledge about certain matters, should we abandon all hope concerning these? Must every scientific utterance, say, be a wild guess, and each speculation as good as any other? Xenophanes does not seem to have concluded this.

It is sometimes claimed that Xenophanes' scepticism involves probabilism or something like it. It is argued that δόκος opinion in (47.4b) should be read as valid assumption or plausibility; and probabilism or something like it is mirrored in two other important fragments. Firstly:

Let these things be thought to be similar to the realities ... (58: Plut. Table 746b (B35)).

Since δοξάζω be thought is a cognate of δόκος, ταύτα these things may plausibly be the subject matter of (47) – "the gods and what I say about all things" (Lesher: 1992, p. 175). Also δοξάζω is in the third person singular passive perfect imperative form here, and this form implies a decisive command (Goodwin: 1958, p. 272 sec. 1276). So (58) may well constitute a definite recommendation to accept what Xenophanes said in whatever poem (47) introduces (cf. Reiche: 1971, p. 92), even though what he says is only "similar to the realities".25

---

24This imperative is followed by μέν, and it is suggested that this is an emphatic use of μέν, hence it reinforces the decisiveness of the command (Lesher: 1992, p. 175). However, "many cases which appear at first sight emphatic are really elliptically antithetical" (Denniston: 1954, p. 359), and, of course, in (58) there need be no ellipsis, rather the second part of the antithesis may simply not have been quoted.

25The imperative δοξάζω could also suggest a permanent command. And if permanent acceptance is being commanded, what Xenophanes said would presumably be as "similar to the realities" as it is possible to get (cf. Lesher: 1992, p. 175).
But does this similarity to reality constitute probabilism, or something else? Probability and verisimilitude are not the same thing. And since (47.3-4) suggests that the greatest verisimilitude is possible without certainty, Xenophanes presumably knew the difference (Popper: 1963, pp. 236-7). Also he most likely meant ‘like the truth’ in (58) since the translation probable does not fit with the dative of εὐμον to the realities (Lesher: 1992, p. 170). In short, (58) most likely constitutes a strong recommendation to accept what Xenophanes says, on just those things he expresses scepticism about, as more like the truth, not as more probable, than any previous account.26

The second fragment that suggests probabilism or this verisimilitude theory is the following:

Not from the beginning did the gods reveal all things to men; but in time, seeking, they discover better
(59: Stob. Anth. 1.8.2 (B18)).

Numerous interpretations have been suggested for (59).27 It is usually read as an expression of faith in human progress. This is sometimes taken as a general cultural progress incorporating scientific, ethical and material progress. Many explanations are suggested for Xenophanes’ adoption of this faith in a general cultural progress: he would have noticed numerous technical, scientific and ethical improvements28 in his long life (Edelstein: 1967, pp. 11-4); he lived in a time when the Greeks were beginning to abandon theories of human degeneracy, such as Hesiod’s five degenerating races, for just this kind of faith in progress (Dodds: 1973, esp. pp. 4-9; Guthrie: 1962, pp. 400-1);29 and his travels may “have suggested the idea of man’s slow and uneven upward movement from barbarism to civilisation” (Dodds: 1973, pp. 4-5). But, although these might explain this faith, if he did in fact hold it, they hardly prove that he did.

For Havelock (1957, p. 106), (59) seems to be sufficient by itself to imply this faith in general progress, but is it? ἐξευθείασαζοµεν ὄµεινον they discover better is quite open-ended and its reference need not be limited to factual knowledge or beliefs. But ἑυδείκτον reveal and ζητεο seeking both suggest that information, knowledge or belief are involved.30 Furthermore,

26 Verisimilitude cannot be the reason for this acceptance: (58) does not read ‘accept these things because they are like the realities’, rather it is a recommendation to ‘accept that these things are like the realities’.

27 A (hopefully) comprehensive list of the variations is given by Lesher (1991, p. 230).

28 Edelstein’s claim that Xenophanes would have interpreted a questioning of inherited values and an adoption of the quest for the good life as an ethical improvement seems particularly implausible (cf. (24), (49) and (50)).

29 This is suggested by Xenophanes’ contemporary Hecataeus, who associated inventions with individual men of the past instead of the gods (Edelstein: 1967, p. 9). Dodds claims that later expressions of this idea are given by Chaeremon (Stob. Anth. 1.8.32 (Nauck fr. 21)) and Moschion (Stob. Anth. 1.8.38 (Nauck fr. 6)) (p. 8), but Lesher (1991, p. 223) disputes that Chaeremon, at least, needs to be read as “a statement of faith in the advance of civilization as a whole” (my italics).

30 Lesher (1991, pp. 237-40) notes that ἑυδείκτον means more specifically show secretly, so, again, there is the suggestion of an attack on divination (perhaps among other things) since divination can be seen as a kind of ‘secretive’ channel of communication.
the only support for an interest in progress beyond intellectual inquiry is Xenophanes' identification of the Lydians as the inventors of coinage (Poll. Voc. 9.83 (B4)). It is argued that he is interested in this invention because it is one of the developments that occurred in his lifetime which led to his faith in progress (Dodds: 1973, p. 4; Edelstein: 1967, p. 4; Havelock: 1957, p. 106). But isn't it more likely that he reported it as another example, or even the root cause, of the Lydian decadence he decries in (49) (Lesher: 1991, pp. 234-5; Heidel: 1943, p. 271)?31 Of course, it may be that inquiry is the engine of a more general progress of civilisation, but this would go against the renowned Greek disdain for 'applied science' (cf. Sambursky: 1956, pp. 225-9; Burnet: 1938, pp. 16-8). So (59) appears to claim that human effort can achieve some progress in our opinions on certain matters. In short, if we combine (47.1-2), (58) and (59), and we get something like 'although we know nothing about certain things, we do have opinions like the realities which can be improved on by human effort'.32 33

There is something else we should ask at this point: the gods did not "reveal all things to men", but could they have revealed some things to men? If we translated φαίνω have appeared in (51) as they have revealed (eg. Barnes: 1979), (51) would connect up well with (59). The combination of these two fragments gives us: 'the gods did not reveal everything to people, but they did reveal some things, and by patient inquiry these things can be improved on.' However, this translation does not fit neatly with Xenophanes' repudiation of "divination in its entirety" (57). We must not go too far here. There is no inconsistency. As we have seen (in ch. 1), divination is not the only path by which revelations may be transmitted. Xenophanes may have been critical of the process of extracting information from the gods when it was relayed by arbitrary signs such as the appearance of a rainbow,34 but still have believed in some form of direct revelation – that is, revelation that requires no interpretation of signs or the like.35 But

31The idea that money, or the love of money, is the root of all evil may have been explicitly stated as early as Diogenes of Sinope (DL 6.50).
32Popper (1970, pp. 147-53) argues that this is not a new idea of Xenophanes – he was just the first to state explicitly what must have been accepted in the critical tradition inaugurated by Thales (see ch. 2). But, as I have argued, the Milesians may have been happy to criticise each other, but not at all happy to be criticised in turn. And if this is the case, the acceptance that one's own theory was not a final truth, because there was no clear method to decide between it and the variety of other contrary theories, may have taken some time to sink in. Hence it is just as plausible that Xenophanes was the first to perceive this consequence of scientific inquiry as it is that he was merely the first to state it.
33Lesher (1991, pp. 246-7) does not believe that (59) must be read as a statement of faith in gradual progress – that as more and more facts are amassed, better and better explanations of nature will result. Rather the claim could be that at some point in time, when sufficient appropriate facts are amassed, a better explanation of nature than the mythical will be discovered. (The implication of a permanent recommendation in the imperative δεινόκου in (58) (see note 25) might suggest that, thanks to Xenophanes, this point in time had in fact been reached. But if this were the case, we would expect εξερέασκω they discover to be in the first person perfect – giving us we have discovered – not the third person present.)
34As is suggested by his use of ἐνδείκνυμι in (59) (see note 30).
35But we have seen (in ch. 1) that signs were a highly reliable source of divine revelation. So their rejection alone would still constitute a profound departure from Homeric tradition.
when we consider his theology more fully, this begins to seem unlikely. For Xenophanes there was but

one god, greatest among gods and men,
similar to mortals neither in shape nor in thought
(60: Clem. Misc. 5.14.109.1 (B23); tB).

This conception of god as so radically different to us suggests remoteness. And in Xenophanes' time, even if not our own, it would not be likely that such a remote god would be seen as revealing anything directly to humanity – the Homeric gods typically came down to earth, to the human realm, to impart information directly (cf. Snell: 1953, p. 142; and see ch. 1). So the traditional direct channels of information from the gods are discarded along with the traditional gods themselves. If this is right, then they have revealed is not a plausible translation of φαίνει in (51), and (59) would not be meant to imply that some things were revealed from the start. And these considerations only reinforce the suggestion (of ch. 2) that philosophy was born in an environment that had rejected divine revelation as a source of knowledge.

This conclusion has been disputed. Verdenius (1955, p. 221) and Shorey (1911, pp. 88-9) deny that Xenophanes could have believed that humanity improves unaided by the gods. Verdenius argues that this claim is incompatible with Xenophanes' religiousness; Shorey that it is incompatible with the Greek sentiment that "the gods give us also what we find" (p. 88). But both of these points are adequately addressed by Loenen (1956, p. 136): a denial that the gods reveal anything to people is compatible with believing that "all good came ultimately from the gods", and it is only a denial of this latter claim that is incompatible with Xenophanes' religiousness or the Greek sentiment.

HOW ARE WE TO DISCOVER BETTER?

In the absence of divine revelation, and with no faith in the ad hoc 'methods' of his predecessors, it seems implausible that Xenophanes could

---

36 According to Simplicius (Phys. 22.30 (A31)) and Aristotle (Met. 986b24 (A30)), far from being remote, Xenophanes' god is identified with the universe (cf. Burnet: 1945, pp. 126-9). This would also eliminate any kind of divine revelation from the picture, at least in any literal sense (but a divine universe could still reveal things to mortals through certain feature of itself (the world) (something like this occurs in Heraclitus (see ch. 4))). However, there are problems with the strict identification of god with the universe. The most significant problem is that "but without toil he [god] shakes all [things] by the power of his mind" (Simp. Phys. 23.19 (B25)) implies that god is distinct from the universe. This distinct god could be either transcendent or immanent (although οὐκ ἄνωθεν gives a slight suggestion of transcendence in its sense of aloof from). But an immanent god can still be radically different from us, hence just as remote as a transcendent god in terms of direct channels of communication. (Other problems with the strict identification of god with the universe are that innumerable world-orders, but one god, are attributed to Xenophanes (DL 9.19 (A1)); and that god is said not to move (20), but the universe does move. But I believe that these have been dealt with quite satisfactorily by Kirk (1983, p. 178 n. 1) and Guthrie (1962, pp. 381-2), respectively.)
What Xenophanes says about all things

have still felt that there could be progress in our opinions unless he had some new method to aid him. (59) gives us at least a name for such a method: ζητεῖν seeking. Lesher (1991, pp. 243-5) suggests that this seeking is a kind of ‘fact-finding’ inquiry (cf. Fritz: 1974, pp. 36-7). This is supported by (32) and (34), and by Heraclitus clumping Xenophanes together with the fact-finding Hecataeus (89). Further similarity between Hecataeus and Xenophanes is found by comparing (58) to the opening phrase of Hecataeus’ Histories:

This is my account, as it seems true to me. For the stories of the Greeks, as they appear to me, are numerous and foolish (61: Dem. Style 12 (Jacoby fr. 1a); tr. Snell: 1953).37

Hussey (1990, p. 25) suggests that this similarity between Hecataeus and Xenophanes implies some antecedent method for improving on the opinions of one’s predecessors that was adopted by both men. But I see no reason to suppose that this antecedent ‘method’ was anything but the ad hoc whatever works policy of the Milesians. In chapter two, we saw evidence that Xenophanes had used both logical and empirical arguments (just like Anaximander before him); and, although his use of empirical evidence certainly improved on the Milesians, and does appear to be more self-conscious, it does not appear to be of an essentially different kind to theirs. So it seems more plausible that Xenophanes (and Hecataeus) was attempting to build on the inchoate methodology of his Milesian predecessors than that he either established his own distinct method, or adopted any method from some unknown predecessor.

This attempt to improve on the Milesians’ approach is another natural development (along with scepticism about scientific matters) from observing the variety of contrary positions developed by the Milesians in the absence of any definite method by which to decide between them. For Xenophanes the principal means for decision was presumably just the quantity of supporting evidence. The Milesians seem to have been happy with just one loose fitting piece of empirical evidence per theory, but not so Xenophanes: the amount of evidence accrued in (32) and (34), especially when contrasted to the Milesians, strongly suggests “a belief that the best way to prove a theory is to provide the greatest amount and widest variety of evidence possible” (McKirahan: 1994, p. 66). Hence ‘with time we discover better’ (59). Of course, Xenophanes could have reacted to the Milesians by developing a method that he felt conclusively demonstrated the truth of his

37Heidel (1943, pp. 263-5) argues that there were also considerable similarities in their interests. Hecataeus accumulated historical, ethnological, and geological knowledge (although the full width of knowledge attributed to him by Heidel relies on arguing that Hecataeus is the original source for much in Herodotus – in particular, he claims that Hecataeus is the source of the observations of fossils in Herodotus (2.12)). Xenophanes’ foundation stories (DL 9.20 (A1)) (p. 267), his concern with invention (of coinage (Poll. Vec. 9.83 (B4))) and discovery (Thales’ prediction of an eclipse (DL 1.23 (B19))), and his concern with the question “how old were you when the Mede came?” (Ath. Epi. 2.54e (B22); tr. Heidel: 1943) all suggest an interest in history; (32) shows an interest in ethnology; and his observations of fossils (34) shows an interest in geology (pp. 271-2). Also Hecataeus’ attacks on myth are comparable to Xenophanes’ negative theology (pp. 272-3).
Theories and the falsity of his predecessors' (and this would seem more likely if he felt he had developed his own distinct method). But this was not his reaction. Rather he believed that his improved method still resulted in less than certainty.

But can we spell out the nature of this fact-finding inquiry in any detail? Did it rely on the testimony of others or travelling widely? Xenophanes seems to claim that he had travelled for many years in (55), and he did have a reputation for extensive travel (eg. DL 9.18 (A1)), as did Hecataeus (Agath. Geo. 1.1 (12A6)) (as the fragments of Tour of the World confirm). So there is every reason to believe that he did travel widely in his search for relevant facts. But could Xenophanes have travelled to all the places listed in (34)? There are four possibilities: (i) he accidentally hit on all the evidence in his travels – this would have been virtually impossible; (ii) he heard of the evidence and went straight there to see for himself – this is highly implausible; (iii) he heard of the evidence and later, when he happened to be nearby due to his extensive travels, he went to see for himself – this is possible, but still seems unlikely for all the evidence; (iv) he just relied on testimony for most or all the evidence – clearly this could have quite easily happened. Either (iv) or a combination of (iii) and (iv) (for example, he was in Syracuse for a time so he checked out the evidence there, but relied on testimony for the rest) seem the most likely alternatives. Consequently, it is reasonable to suppose that both travelling widely and soliciting the testimony of others were acceptable means for the accumulation of facts (cf. George: 1993, p. 12).

If the above considerations are right, then the recommendation of travel for the accumulation of evidence is probably new to Xenophanes and Hecataeus. Although Thales, for example, was said to have travelled (DL 1.24; 1.27 (11A1)), and this may well have been seen as important for the stimulation of ideas, it was probably not seen as beneficial, let alone necessary, for the purposes of gathering evidence to defend one theory over another. Testimony, however, has probably been seen as a valid means of accumulating facts since Homer. But here too things have probably changed with Xenophanes: for example, had Xenophanes developed Anaximenes theory of earthquakes (46), he probably would have made a nuisance of himself at the harbour asking merchants if they had experienced earthquakes; and if so, what the weather was like (see ch. 2).

SOME REMAINING DOUBTS

From the start I have assumed that Xenophanes was some kind of sceptic, but not everyone accepts this. These dissenting positions deserve some consideration. I shall examine two arguments against a sceptical interpretation. Firstly, it is argued that “no man” in (47.1) should be read as ‘no man other than Xenophanes’ – that is, rather than expressing scepticism, (47) is just a denunciation of the theories of Xenophanes’ predecessors. There is a parallel to this: in the following “mortals” clearly does not include Xenophanes:
What Xenophanes says about all things

But mortals think that the gods are born,
and have clothes and speech and shape like their own
(62: Clem. Misc. 5.14.109.2 (B14); tB).

The reason for this interpretation is that "the fervour of his attacks on mistaken conceptions of the gods would be hard to understand if he regarded his own theological credo as itself mere conjecture" (Lesher: 1992, pp. 166-7; cf. Heidel: 1943, p. 275).38 But (47) does not deny passionate convictions to mortals, it only denies that such convictions represent knowledge. A sceptic about subject S, can still make statements within the scope of S which suggest conviction. To avoid this, he would have to either add a sceptical rider to each such statement - 'it is possible that ...', 'maybe ...' etc. - or avoid the subject entirely. Someone who believes that improvements can be made in the subject (even though knowledge can never be attained) certainly has no obligation to avoid the subject entirely; and the provision of a sceptical rider for each statement in S is clearly a ludicrous requirement. Furthermore, Xenophanes' verisimilitude theory allows him to be sceptical about S but still claim to know that certain statements in S are false: if statement x is similar to the truth, yet statement y is opposed to (completely dissimilar to) x, then y can be denounced as false. So even if Xenophanes claimed to know that Homer and Hesiod were wrong, his verisimilitude theory still allowed him to be a consistent sceptic (cf. Kirk: 1983, p. 180).

But there is one fragment that could cause some difficulty: we might expect some sort of sceptical rider from Xenophanes in the following:

This upper limit of the earth is seen at our feet
pushing up against the air, but what is below extends indefinitely
(63: Ach. Aratus 4 (B28)).

Here we have a statement of empirical fact as down to earth as you can get juxtaposed to a statement that is clearly embedded in the realm of the non-evident, and both are apparently stated with the same degree of conviction. Might we not expect here, at least, some suggestion that both statements are not on an epistemic par? But this is fairly weak evidence that Xenophanes had no doubt about the veracity of all of his own opinions. And against this there are fragments (58) and (59): if Xenophanes had no doubt as to the veracity of his own opinions, then he would already know what the realities are; so there would be no room to develop a better account over time (59),39 and his account would be more than just similar to these realities (58).

The second argument against a sceptical reading denies that the expression of scepticism in (47) is truly philosophical scepticism. Deichgräber argues that (47) presents another expression of the opposition between divine and mortal knowledge such as we find in (1) (Kirk: 1983, p. 179). The problem is that the apparent general scepticism of (1) is not held

---

38This point, of course, could be used to support Finkelberg's position that Xenophanes was not sceptical about his god, but was sceptical only about scientific matters (see above).

39But see note 33.
consistently throughout the *Iliad*; consequently, he argues, (1) is just an exaggerated expression of the *relative* ignorance of mortals compared to the gods, or the like. This amounts to nothing more than the vague acceptance that human knowledge is limited — a perfectly common sense position that hardly constitutes philosophical scepticism. So, since (47) and (1) are essentially the same, (47) is also just an exaggerated expression of this *relative* ignorance. But this argument supposes that (1) expresses something that is not consistently held throughout the *Iliad*, so cannot be taken literally. But, as we saw (in ch. 1), (1) really claims that, without a god’s help, mortals know nothing about the distant past, and this limited ignorance is consistent with the rest of the *Iliad*. So if (1) is to be taken literally, there is no case for not taking (47) literally.

It could still be argued that (47) doesn’t constitute *philosophical* scepticism because (i) the limited scepticism it expresses only reflects a common, unreflective position of Xenophanes’ time, or (ii) the scepticism is not argued for. But the inclusion of “the gods” in the scope of his scepticism counters (i); and if the scepticism was based on the requirement of an appropriate cause, this counters (ii).

CONCLUSION

In short, we have reached the following central conclusions about Xenophanes’ epistemology: (i) he was most likely a limited sceptic; (ii) this scepticism was probably *focused* on, but not strictly limited to, scientific matters; (iii) the reason for this scepticism seems to be that, in addition to true belief, an appropriate cause of a belief is required for knowledge, and this cause is missing for beliefs within the scope of his scepticism; (iv) he held a verisimilitude theory — certain beliefs within the scope of his scepticism should be accepted as closer to the truth than others; (v) we can improve on the opinions of our predecessors to gain even greater verisimilitude; (vi) Xenophanes’ method for making such improvements was probably just a refinement on the ‘method’ of the Milesians, including both fact-finding inquiry and *a priori* reasoning.

THE STORY SO FAR

So far we have seen, in the Milesians, a shift away from the use of divine revelation as the source of knowledge about things beyond immediate experience. They replaced this, principally, with a greater reliance on inference from direct experience. But the most radical move was to supplement this with *a priori* reasoning. Xenophanes essentially followed on from the Milesians, but was more conscious of the nature of, and problems with, their inchoate ‘method’. Not only was he sceptical about the possibility of gaining knowledge about things beyond direct experience, he even advocated caution in our interpretations of direct experience. Furthermore, he seems to have developed a more *rigorous* form of inference from direct experience.
Heraclitus seems to have taken heed of Xenophanes’ warning about making inferences beyond direct experience (whether these started with direct experience or were purely a priori). His answer to this is not only to ignore Xenophanes’ caution about interpreting direct experience, but to make this the basis of his method.
The central epistemological concern of Heraclitus is wisdom: wisdom is understanding the λόγος and λόγος refers to the central features of Heraclitean metaphysics. That is, Heraclitus' epistemological concern was 'how are we to come to understand certain metaphysical truths?'. But there are some problems with this interpretation. Firstly, in some fragments wisdom seems to be attained only by god, implying that metaphysical understanding simply cannot be attained by people. But I will try to show that this conclusion is not warranted: albeit in a derivative sense, wisdom can be attained by mortals too. Secondly, it seems odd that such metaphysical understanding is called 'wisdom'. But this makes sense if we accept that, for Heraclitus, metaphysical understanding can be applied to life – I will attempt to spell out just how.

With this done, we must turn to the question 'just how is the wise man related to the λόγος, how is wisdom attained?' Firstly, we will see how wisdom is not attained. There are two elements to this; and these are run together in some of the fragments, so I will deal with them together. They are (i) Heraclitus' apparent disdain for testimony; and (ii) his claim that much learning, or knowledge, does not provide wisdom - that wisdom is in fact one thing.

But if testimony and much learning do not give us wisdom, what does? It is apparent that sensory experience played some role in his epistemology. The λόγος is all pervasive, and hence is to be found in everyday experience. Although mere sensory experience is clearly not sufficient for wisdom, there are reasons to think that it is necessary. This does not necessarily make Heraclitus an empiricist: I do not think Heraclitus was concerned with knowledge at all; and even the conclusion that he was an empiricist of wisdom is far from certain. Another necessary condition for wisdom may be self-searching, but the role of self-searching is far from clear.

However, whether one is searching oneself or the world for wisdom, some mental faculty is required to attain this wisdom that not all men have – a non-barbaros soul. I attempt to spell out what a non-barbaros soul is in terms of sensory perception; its relation to self-searching may be analogous to its relation to sensory perception, but again nothing is clear here. Essentially this non-barbaros soul entails a riddle-solving capacity: the λόγος is given in our experience but not immediately apparent in spite of this in

---

1So he only developed an epistemology in the broad sense outlined in the introduction.
much the same way as the answer is given in riddles without being immediately apparent.

THE HIDDEN NATURE

As I have suggested, Heraclitus' epistemology is an epistemology of metaphysics, hence an examination of the relevant features of Heraclitus' metaphysics is required before we can turn to his epistemology. We shall begin with the following fragment:

Nature² likes to hide itself (64: Them. Speeches 5.69b (22B123)).³

It should not surprise us to find this statement attributed to a Presocratic philosopher. Surely, we would be astonished if any of these early cosmologists were to claim that his account of the origins and structure of the cosmos – its nature – was immediately apparent. Presumably, the only reason why no philosopher before Heraclitus explicitly stated that the nature of things is 'hidden' was that this was simply taken for granted. Indeed, the Milesians and Xenophanes took a great deal for granted about this hidden nature (in spite of it being hidden) – for example, it seems that it was taken for granted that this hidden reality was a single stuff from which the universe originated and of which it was still constituted.⁴ So it is not surprising that the hiddenness itself was considered so apparent as not to warrant mention. But Heraclitus did explicitly state this presupposition, and it seems to be no mere accident that he was the first to do so.⁵ He was the first, I suggest, because the hiddenness of nature presented a problem to Heraclitus that it did not present to his predecessors. Xenophanes, as we saw, had reflected on the question 'how are mortals epistemically related to the nature of hidden things?'; and, as far as we can see, he was the first to do so. But his conclusion was essentially negative – his scepticism was mitigated by his verisimilitude theory, but he was a sceptic about things

²Kirk (1954, p. 229) disputes the reading of φύσις as Nature in the sense that it refers to either "the constitution of the whole agglomeration of things ... or a transcendent principle". He claims that this sense does not occur "before the later part of the fifth century, if then". He argues that φύσις should be read as the real essence (of things). Such a reading in (64) is strongly suggested by (76), since in (76) this reading of φύσις, or something very similar, is more clearly required. But 'nature' can have this sense of 'real essence' too, so I prefer to translate φύσις with a non-committal nature.

³There are at least two kinds of metaphysics: (i) reality is among the appearances; (ii) reality underlies or is 'behind' the appearances. Heraclitus appears to provide another alternative: reality both underlies the appearances and interpenetrates them – ie. (i) + (ii). I will attempt no direct justification of this interpretation of Heraclitus here, but will only make the following two points. Firstly, this interpretation makes the most sense on the basis of the following account of his epistemology. Secondly, this is already suggested in (64): the only point I can see in saying that nature likes to hide, rather than that nature is hidden, is to suggest that it tends to hide – ie. is mostly, but is not always, hidden (cf. Marcovich: 1967, p. 33). One reason why this might be so is that, although the nature of things is everywhere underlying the phenomenal world, it occasionally penetrates up to the surface.

⁴But see ch. 2 note 2.

⁵Although the idea of hiddenness is suggested by the difficulties of inquiry referred to by Xenophanes (59).
hidden none the less. Heraclitus, however, seems to have viewed the question about how we are epistemically related to the hidden nature as a puzzle to be solved in a positive way.

The central purpose of this chapter is, firstly, to argue that this was the case – that the hiddenness of nature did present an epistemological problem to Heraclitus – and, secondly, to present his answer to the problem. From the start we can at least say that he did not make this comment (64) in passing (and that it happened to get recorded due to some idiosyncrasy of Themistius, rather than because of its significance to Heraclitus' philosophy). This much is clear simply because the same point about something hidden is made in a number of other Heraclitean fragments:

Those who search for gold ... dig over much earth and find little (65: Clem. Misc. 4.2.4.2 (B22); tB).

If one does not expect the unexpected,6 one will not find it out, it being unsought and scarce (66: Clem. Misc. 2.4.17.8 (B18)).7

I believe the following fragments also relate to this point about the hidden nature, although this will only become apparent after I develop my account of Heraclitus' epistemology more fully:

The lord whose is the oracle at Delphi neither speaks nor conceals but indicates (67: Plut. Pythia 404de (B93)).8

---

6 Most commentators now favour this punctuation as opposed to Diels (cf. esp. Marcovich: 1967, p. 40).
7 This fragment has been interpreted as denying that insight is achieved by investigation (Holscher: 1974, pp. 233-4). This is a possible interpretation: ὀπόρος scarce can also mean trackless, and the overall sense of the fragment could be 'you will not find the unexpected by searching because it cannot be sought – it is trackless', as opposed to 'if you don’t expect the unexpected, you will not seek it out, hence you will not find it'. Certainly, Heraclitus does not advocate any logical proof as a path to insight, as opposed to Parmenides, but this hardly means that there is no means of seeking the truth for Heraclitus. Furthermore, Heraclitus' negative methodological claims criticise a certain way of seeking (πολυμοζή much learning or ιστορίη inquiry) not seeking itself (see below).
Marcovich (1967, p. 40) suggests that both ὀνειδευόμενος unsought and ὀπόρος imply difficulty – ie. 'hard to be searched out and difficult to compass'. Indeed, translations such as "cannot be tracked down" (tB; my italics), are not necessary, and conflict with the implication of Heraclitus' epistemology that wisdom is attainable (see below). Robinson (1987, p. 88) suggests that the subject of this passage is "the conscientious enquirer", which makes good sense – ie. although conscientious, by seeking only the expected the enquirer is simply looking in the wrong place. The translation of ὀπόρος as scarce is because this is in line with fragment (65), but difficult (as with Marcovich) is also plausible.
8 This translation is equivalent to Barnes (1987) but for the trivial difference of 'lord' instead of Barnes 'king'. And this is not the only translation of mine that is identical or virtually identical to another translation. In many cases, especially the shorter fragments, this is because the fragment allows few translations (although invariably many interpretations); but sometimes, as in the present case, there is doubtlessly some influence from the similar translation. Such influence in translation, however, would be impossible to document fully, I can only here confess that it does occur.
The Sibyl's⁹ raving mouth ... speaks without mirth or adornment or perfume (68: Plut. Pythia 397ab (B92); tB).

However, that there are a number of passages alluding to the hiddenness of nature only tells us that Heraclitus found this hiddenness to be worth mentioning. It is not immediately apparent that it was worth mentioning because Heraclitus perceived some philosophical problem associated with it, let alone that he perceived some epistemological problem associated with it. Having said this, I do believe that an epistemological bent can already be discerned in (65) – (68). But before we attempt to spell out this epistemology we must try to make clear just what Heraclitus meant when he said that "nature likes to hide itself". What is this φύσις nature of which he speaks? Kirk (1983, p. 192-3; cf. 1954, pp. 223, 231; Robinson: 1987, pp. 161-2) relates (64) to the following fragments:

Unapparent connection is better¹⁰ than apparent (69: Hippo. Ref. 9.9.5 (B54)).¹¹

They do not comprehend how, in differing, it agrees with itself – a backward-turning connection¹², like that of a bow and a lyre (70: Hippo. Ref. 9.9.2 (B51); tB).

Combinations – wholes and not wholes, concurring differing, concordant discordant, from all things one and from one all things (71: Ps-Arist. World 396b20-1 (B10); tB).

Kirk claims that the hidden nature of things is their unapparent connections one to another (69) simply because being hidden and being unapparent are essentially the same thing. And those unapparent connections are maintained by opposition ((70) and (71)) (cf. Kahn: 1979, p. 200).¹³ This comes out clearly in Aristotle, who probably had all the above fragments ((69) – (71)) in mind when he wrote that:

---

⁹The Sibyl is a wandering oracular prophetess much like the Delphic Pythia (Kahn: 1979, pp. 125-6). Kahn takes this fragment to be a criticism of the religious practice of revelation by ecstatic possession.

¹⁰κρείττων better is commonly translated as stronger (Kirk: 1983; 1954; Barnes: 1979; Marcovich: 1967). This is just as plausible, and probably contains more information (being stronger is presumably better than being weaker).

¹¹Another possible translation is invisible ... visible (Marcovich: 1967). This contrast is just as plausible taking the fragment by itself. However, this suggests that the better connection is never seen – this contradicts the account of Heraclitus' epistemology that I argue for here, and seems at variance with fragment (64) (see note 3).

¹²ἀποκόπτων connection is derived from the verb ἀποκόπτω fit together. This metaphysical fitting together may have an epistemological counterpart in ξύνειμα comprehending: its verbal equivalent ξύνειμι also has the sense of coming or bringing together (see below).

¹³Just what the apparent connection is is not terribly important. For a reasonably comprehensive list of possibilities see Kirk (1954, pp. 223-6). Robinson (1987, p. 119) makes the interesting suggestion that the contrast is, amongst other things, between "the surface-connections of linguistic items within Heraclitus' own account ... [and the] hidden and more subtle ones".
Heraclitus says that opposition concurs and the fairest connection comes from things that differ (72: N. Ethics 1155b4-6 (B8); tB).

This pattern of connections between things is a feature of the universe as a whole – as Ps-Aristotle maintains in his gloss to (71): ‘In this way the structure of the universe ... was arranged by one harmony through the blending of the most opposite principles’ (396b22-5; tB). The first thing that suggests that the nature Heraclitus is concerned with is that of the universe as a whole is that he talks of a single nature, not natures, in (64). We are also told that ‘all things are one’ (108), just as the opposites day and night are one (117); suggesting that the connection holding between day and night holds between all things – that is, the universe as a whole.14

Now, for the purposes of expounding Heraclitus’ nature, the word ‘thing’ should not be taken to refer only to middle-sized dry goods, but to have the most general reference. That is, it is not only objects such as men and horses, or carding combs and barley drinks, that can constitute the relata of the connections of opposition, it can also be the elemental masses – fire, earth and water (cf. esp. Clem. Misc. 5.14.104.2-5 (B30-31b), incls. (73)); more definite masses such as the sea (112); and insubstantial states such as night and day (117). It is not clear what Kirk means by ‘thing’. He does agree that Heraclitus’ hidden nature, the connections due to opposition, is to be taken as a feature of the universe as a whole (1983, p. 192), but whether he also accepts the thesis that the connections due to opposition are inherent at all levels – those of the elements, meteorological phenomena, physical objects and humanity – not just at the level of physical objects, is not clear. Guthrie (1962, pp. 440-1) and Burnet (1945, pp. 163-5) also seem to accept that Heraclitus is concerned with the nature of the universe taken as a whole, but seem to take the essential connection to be between the elemental masses only.

This opposition that interconnects the universe is mainly, but not exclusively, a dynamic one. This sense of dynamic opposition is captured in Heraclitus’ terms ‘strife’ and ‘war’ (77). On the level of the elements, dynamic opposition led to the transformation of elements one into another:

---

14Kirk (1954, pp. 230-1) suggests that a limiting genitive, such as πάντων, may have been omitted after φύσις nature or the real essence “due to [Heraclitus’] condensed style and considerable grammatical freedom” (p. 231). But even if πάντων could be understood with φύσις, φύσεως πάντων does not obviously give the required sense of the real essence of all things as a whole. Indeed, the sense of φύσις in (76) suggests a reference to individual things; so if a limiting genitive were added, it would seem to give us something more like Marcovich’s (1967, p. 33) translation of φύσις as the real constitution of each thing – not all things (let alone all things as a whole). But if the account of Heraclitus’ metaphysics that I have outlined is correct, then there is no real difference between a reference to each thing and to all things since the nature of each thing is the same as the nature of every other thing viz its participation in the principle of opposition. But there also seems to be no real difference between a reference to the nature of all things and to the nature of all things as a whole since this nature is the connections between all things. That is, the nature of each thing is just its participation in which binds all things and makes them one (108).
The connection between the dynamic element of Heraclitus' thought, his theory of change, and the harmony of opposition thesis is apparent at other levels: night changes into day ((117) and (83)); living things die (Ps-Plut. *Apoll.* 106e (B88); *Her. Hom.* 24.4 (B26)); and our lives are an alternation between waking and sleeping (Ps-Plut. *Apoll.* 106e (B88)). Kahn (1979) develops this theme throughout his book (but cf. esp. pp. 278-9).

The relation of dynamic opposition between the elemental masses is not a new idea, we find it in Anaximander. And the observation of dynamic opposition in the change of night to day, in the change of seasons, and such like, may well have been involved in developing his cosmological theories (see ch. 2). However, the spelling out of dynamic opposition at this earthly level and the extension of it to the human level (the oppositions of death and life, waking and sleeping) seems to be a new contribution by Heraclitus. And this extension to the human level was of central importance for Heraclitus, as we shall see. Furthermore, whereas Anaximander saw the opposition of elemental forces as resulting in injustice (Simp. *Phys.* 24.19-20 (12B1)), Heraclitus said that 'justice is strife' (77). This is so, thought Heraclitus, because strife is necessary for this world to be (Kirk: 1954, pp. 241-4):

Homer when he prayed – 'Discord be damned from gods and human race', forgot that he called down curses on the origin of all things, since they have their source in antipathy and war (74: Plut. *Isis* 370d (A22); tr. Bywater: 1969)

To sum up, I have made the following claims about Heraclitus' hidden nature: (i) by 'nature' in (64) he means the nature of the cosmos taken as a whole; (ii) this nature is a pattern of connections throughout the cosmos; (iii) these connections are due to opposition, principally dynamic opposition; (iv) this opposition is all pervasive – not only is it throughout the whole cosmos but it permeates it at all levels, not just the elemental;

---

15There is reason to doubt that this process of physical transformation of a clump of one kind of 'stuff' into another kind of stuff was the pattern for the transformation of anything but actual clumps of stuff like earth, water, etc. (Mourelatos: 1973, pp. 33-9). For example, this is hardly the natural reading of "cold things grow hot, the hot cools, the wet dries, the parched moistens" (Tzet. 11. 126h (B126); T): this sounds like the same thing taking on different properties (pp. 36-7). And the claim that night and day, and other pairs of opposed properties, are one (117) does seem to entail a denial that these pairs are stuffs or things since they could only be two distinct stuffs or things (pp. 33-6).

16Kirk (1954, p. 240; cf. Wiggins: 1982, pp. 5-6) argues that 'justice is strife' is a correction of Anaximander’s description of the encroachment of opposites upon one another (if this is indeed the sense of Simp. *Phys.* 24.19-20 (12B1)) as injustice. Marcovich (1967, pp. 139-40) disputes that *ἐπιστρέφει* entails the idea of elemental change let alone that of encroachment on another’s ‘property’. Marcovich, however, fails to take account of the *generality* of this fragment: the normal use of *ἐπιστρέφει* certainly does not entail elemental change, but as soon as its use is generalised beyond this ordinary use there is no reason to suppose that it does not entail the kind of change that Anaximander is usually taken to be referring to as *injustices*. 
The obscure wisdom of Heraclitus

and (v) dynamic opposition, at least, is necessary for the continued harmonious existence of the cosmos.\textsuperscript{17}

**COSMIC UNDERSTANDING**

I have been concerned with Heraclitean metaphysics because it is not possible to elucidate his epistemology in isolation from this, simply because Heraclitus was only concerned with the epistemic relation to metaphysics – that is, the relation of understanding the hidden nature. This begins to become apparent in the following:

Wisdom is one, to understand the plan\textsuperscript{18}, how all is steered through all (75: DL 9.1 (B41)).\textsuperscript{19}

But how does the steering of all things through all connect up with the metaphysics of opposition that I have outlined above? We are told that the λόγος 'governs the universe' (97). The phrase 'steers all through all' is probably just another way of saying 'governs the universe'. At the very least, given that "all is steered through all" somehow, then that which governs the universe would be just the thing to do this steering (perhaps amongst other things). So I think we can safely assume that the λόγος is what we must understand if we are to attain wisdom.

But what is this λόγος? There is a great deal of controversy over just what Heraclitus meant by λόγος. Barnes (1979, p. 59) argues that it means

\textsuperscript{17}This account of Heraclitean metaphysics is not intended to be either complete or uncontroversial. I have attempted no thorough justification of these claims, but this interpretation of his metaphysics fits best the following account of his epistemology; so if this account of his epistemology is correct, it provides support for this account of his metaphysics; and this constitutes quite strong support since the following account of his epistemology entails that he is only concerned with an epistemology of his metaphysics. For a more direct justification of these metaphysical points see especially Kirk (1983; 1954) on points (i) – (iii), and (v), and Kahn (1979) on point (iv).

\textsuperscript{18}Other important elements of Heraclitus' metaphysics/cosmology not dealt with here are the question whether he developed a theory of flux (all things always change) (Wiggins: 1982, pp. 7-10; Barnes: 1979, pp. 65-9; Popper: 1970, pp. 140-7; 1963, pp. 159-64) or rather of measured change (where the universe as a whole is always changing, but each thing is not always changing) (Kirk: 1983, esp. pp. 194-7; 1970, pp. 170-7; 1954, esp. pp. 74-80, 369-70; Comperz: 1953/2, pp. 100-2); whether 'fire' is (Kirk: 1983, pp. 198-9) or is not (Wiggins: 1982, pp. 13-8) meant to denote a material substance; and whether the elements oscillate between different proportions (fire eventually reaching 100\% of the total – i.e. ekpurosis – (Kahn: 1979, pp. 134-6, 145-52), or always falling short of ekpurosis (Wiggins: 1982, pp. 18-22)) or the elements maintain the same proportions through instantaneous reciprocal change (Kirk: 1954, pp. 335-8; Burnet: 1945, pp. 158-63).

\textsuperscript{19}Following Robinson (1987) and Wiggins (1982) among others. If this translation is acceptable, then it is plausible that γνώμη plan = λόγος. Marcovich (1967, p. 451) argues that the verb κυβερνάω is steered and the conventional religious phrase πάντα διὰ πάντων all ... through all "strongly suggest that the atmosphere is rather the theological", so γνώμη should be read as denoting a divine being. However, in the context of Heraclitus' Milesian predecessors, it would seem more accurate to say that these suggest that the atmosphere is rather the cosmological (of which the theological is a part, but not the whole) (see esp. (29)). Hence I prefer the less committal plan.

\textsuperscript{14}For the corruption here I follow Kirk (1954, pp. 386-8) – οὐ̄ κυβερνάτε ἥω ... is steered.
nothing more than what Heraclitus says about how “all things come about” (76) – that is, λόγος just means account. But most commentators, while accepting that it does sometimes refer to what Heraclitus says, believe it also refers to some metaphysical feature of the cosmos of which Heraclitus speaks, such as fire (Kirk: 1983, pp. 187-8), and/or the basic structure of the world (Kahn: 1979, p. 98). Although Barnes seems to have the ordinary usage of Heraclitus’ time on his side, his thesis has problems. For example, how could what Heraclitus says be common to all (99) or govern the universe (97) (Curd: 1991, p. 533)? On the other hand, the λόγος is something that people can hear in (108) and the following:

Of this λόγος which holds forever men prove uncomprehending, both before hearing it and when first they have heard it. For although all things come about in accordance with this λόγος they are like the inexperienced as they try the words and the deeds which I expound as I divide up each thing according to its nature and say how it is (76: Sext. M 7.132 (B1); tB20).

But how can one hear a metaphysical feature of the cosmos?

These and other difficulties with Heraclitus’ use of λόγος can be explained if we suppose that the λόγος is a proposition – a truth, or unified set of truths, that holds independently of being stated. Accepting this explains why the λόγος is something that can be heard ((76) and (108)) (which is also simply explained by saying it is just Heraclitus’ account, but not explained by saying it is a metaphysical feature of the cosmos21). But the λόγος can be heard in more than Heraclitus’ words: (i) Heraclitus tells us to listen to the λόγος as opposed to him (108); and (ii) he implies that people could have comprehended the λόγος before hearing it (76). Yet these are also naturally explained if we accept that the λόγος is propositional ((ii), at least, is simply explained by saying the λόγος is a metaphysical feature of the cosmos, but neither (i) nor (ii) are explained by saying it is just Heraclitus’ account) (cf. Curd: 1991, pp. 533-4; Wilcox: 1991, p. 628; Robinson: 1987, pp. 114-5; Hussey: 1982, pp. 56-7). The commonness of the λόγος could, then, be the fact that it is a truth (or unified set of truths) that applies to all things and/or the universe as a whole. The fact that the λόγος governs the universe is a little harder to fit into this thesis. But what is happening here may be analogous to an English idiom: we can say ‘the theory of gravity governs all things’, even though it would be more accurate to say ‘gravity governs all things’; given this, in the appropriate context, where ‘of gravity’ would be understood, we could say simply ‘the theory governs all things’.22

20 Except for λόγος instead of “account” and “the inexperienced” instead of “tiros”.
21 Although the fact that the λόγος can be ‘heard’ could be explained in a way consistent with this metaphysical position and the following account of Heraclitean epistemology: the λόγος could (figuratively) ‘speak’ to us through what we see around us (cf. Marcovich: 1967, p. 114; Kirk: 1954, p. 67).
22 We should note that this explanation is perfectly consistent with Barnes’ position that λόγος just means account. But there is a problem with taking λόγος to mean something like theory or law of nature: if λόγος is taken in this way, this may still lead us to the conclusion that it is a metaphysical constituent of the world after all since the language in Stob. Anth.
Now, there is good reason to believe that λόγος refers to the dynamic opposition that we dealt with above – that is, the eternal truth that is the λόγος is the truth about this dynamic opposition. Compare “the λόγος is common” (τοῦ λόγου δ’ ἐντὸς ζύνοντος) (99) and “all things come about in accordance with this λόγος” (γινομένων γὰρ πάντων κατὰ τὸν λόγον) (76) with the following:

One must know that war is common (τῶν πόλεμων ἐντὸς ζύνοντος), justice strife, and all things come to be in accord with strife (γινόμενα πάντα κατʼ ἔριν) and necessity (77: Or. Celsus 6.42 (B80)).

What we find is two cases of λόγος being replaced with some term that Heraclitus uses to exemplify his principle of dynamic opposition – πόλεμος war and ἔρις strife, respectively – in otherwise very similar phrases. It seems implausible that both of these pairs of parallel phrases could be accidental, strongly suggesting the central role of dynamic opposition in Heraclitus’ λόγος (Kahn: 1979, pp. 205-7).

In short, since steering all through all is essentially the same idea as governing the universe, and the λόγος governs the universe (97), the λόγος is that which steers all through all, or, more precisely, the λόγος is the truth about that which steers all through all. But the λόγος seems to be equally about dynamic opposition, hence we can reasonably conclude that it is by dynamic opposition that “all is steered through all”, and consequently this dynamic opposition is the object of wisdom. And since dynamic opposition was a significant component, at least, of the hidden nature, we can now see that a concern for wisdom was, for Heraclitus, a concern as to how people are epistemically related to at least part of the hidden nature. Since it seems odd that wisdom should only be understanding part of the hidden nature, it is plausible to suppose that, although we have only demonstrated a relation between the λόγος and dynamic opposition, the λόγος simply is about this hidden nature as a whole, and wisdom is understanding this hidden nature in its entirety.

Wisdom is a kind of understanding for Heraclitus. It may also be a kind of knowledge (Barnes (1987) translates γνῶσις plan in (75) as the knowledge and Kahn (1979) translates ἐπισταμένοι to understand as knowing) but there are reasons to doubt this. The object of wisdom sounds very much like an ultimate explanation, a theory of everything. Now, grasping an explanation of things is more a kind of understanding than a kind of knowledge. For example, I know the law of universal gravitation if I know that the formula is $F = G \frac{m_1 m_2}{d^2}$ (and I know what the various symbols

3.1.180 (B114) does suggest that the “divine law” is a component of the cosmos (Wilcox: 1991, pp. 628-9; Kirk: 1954, pp. 53-4, 69).

23 This might be clearer if we put the argument as follows: ‘wisdom is understanding how all is steered through all’ (75) becomes ‘wisdom is understanding at least a part of the hidden nature’ by substitution from the following equations and inequation: how all is steered through all = how the universe is governed = (how) the λόγος (works) = the process of (dynamic) opposition ≤ the hidden nature.
mean\(^{24}\), but to claim to understand the law would involve more than this. At the very least, its full application to planetary motion, the motion of objects near the surface of the earth etc.\(^{25}\) And to understand, not just know, Heraclitus' λόγος seems to be much of the force of Heraclitus' disdain of both πολυμαθή many learning ((88) and (89)), and of most peoples inability to comprehend what they are told ((76) and (107) – (109)) or what they encounter every day ((97) – (99)). That wisdom, for Heraclitus, is a different kind of epistemic relation or state than knowledge is also suggested by Heraclitus' terminology. He uses different words to denote the epistemic states people do not acquire (γνώσκω perceive, recognise in (98) and (117));\(^{26}\) ξύνημι/αξένετος comprehend/uncomprehending in (70), (76) and (107); νός sense in (89) and (95)\(^{27}\) than he uses to denote the states they do acquire (μανθάνω have learned in (98); οἶδα knew in (117))\(^{28},^{29}\) it is wisdom that most people fail to acquire (see below), and what they do acquire is denoted by terms most unambiguously meaning or implying simply knowledge.

In short, Heraclitus thought that wisdom was understanding, as opposed to simply knowing, the opposition that connects the universe and makes it one. Now, 'wisdom' is an epistemic term, and this opposition is essentially the hidden nature, so it does seem that this hiddenness did represent an epistemological problem for Heraclitus – the problem is the getting of wisdom. But before we turn to the question of how wisdom is attained, we must be sure that it can be attained by mortals. And we should

\(^{24}\)F is gravitational force; G is the gravitational constant; \(m_1\) and \(m_2\) are the two masses exerting gravitational force on one another; \(d\) is the distance between the centres of \(m_1\) and \(m_2\).

\(^{25}\)Recognising these applications may well simply involve knowing further things about gravity than is required to claim to know the law. That is, although understanding \(x\) may not be identical to knowing \(x\), it may well be identical to knowing \(x, y, z\). Indeed, we can take this a step further: if \(x\) was analysable into \(a, b, c\), understanding \(x\) might be identical to knowing \(a, b, y, z\). For example, \(c\) might be \(G = 6.664 \times 10^{-11} \text{ Nm}^2\text{kg}^{-2}\) (N is newtons), but knowing that \(G\) = \(6.664 \times 10^{-11} \text{ Nm}^2\text{kg}^{-2}\) adds nothing to our understanding of the law of universal gravitation over and above knowing that \(G\) is a constant. This means that understanding may be reducible to knowledge, but this does not make the concept of understanding identical to the concept of knowledge.

\(^{26}\)In Stob. Anth. 3.5.6 (B116) the implication is that all men could γνώσκω know, recognise themselves. But is not clear from the fragment itself whether they typically do or not.

\(^{27}\)And in (110) νός is associated with "what is common to all" viz the λόγος (see below), which is not apprehended by all.

\(^{28}\)Unlike πολυμαθή and ιστορία inquiry ((88) and (89)), there seems to be no pejorative sense attached to these words – they are simply not enough to γνώσκω etc. All the same, this may be all that is wrong with πολυμαθή and ιστορία – i.e. Heraclitus' criticism of them could be for no more than that they fall short of γνώσκω etc.

\(^{29}\)The distinction is not perfect, however: most do not φθονέω understand (98); yet φθονέω thinking is common to all (106). Heraclitus also refers to something that at least some people do not οἶδα in (95). But it is clear that what people fail to acquire here is not appreciation of Heraclitean metaphysics (although the point of (95) is probably to say that not οἶδα knowing that most people's testimony is misleading contributes to a failure to appreciate Heraclitean metaphysics); but in all the other accusations of epistemic failure, above, either it is clear that the failure is to appreciate Heraclitean metaphysics ((70), (76) and (117)) or it is at least plausible that the failure is to appreciate Heraclitean metaphysics ((89), (95), (98) and (107)). Επίστομα knowing in (109) also refers to some state people do not acquire, but whether this refers to the absence of wisdom itself or not is unclear (although, as with (95), the failure here doubtless at least contributes to a failure to understand Heraclitean metaphysics).
also ask 'why ‘wisdom’?' – why was it this concept that denoted the epistemic relation to metaphysical truth?

ONLY GOD IS WISE

The wise is one only, it wishes and does not wish to be called by the name of Zeus (78: Clem. Misc. 5.14.115.1 (B32)).

In this fragment wisdom is represented as only being possessed by a single divine being. This presents a serious problem for my translation of (75) since it is possible to translate this to mean ‘the wise is one being: that being which understands how all things are steered through all’ (but cf. Marcovich: 1967, pp. 450-2; Kirk: 1954, pp. 386-7). Although this is a fairly unnatural translation, it would appear to be the one that fits best with (78). At the very least, (78) implies that the one thing that constitutes wisdom, as defined in (75), is beyond the reach of human beings. But the λόγος – that which we must understand to gain wisdom – is said to be right in front of our eyes (97). How can this be so if wisdom is beyond our reach?

This problem is further compounded by the following:

[The] wise is separate from all (79: Stob. Anth. 3.1.174 (B108)).

The genitive plural πάντων all is typically ambiguous between all people and all things, and σοφός wise could mean either the wise being (as in (78)) or wisdom (as in (75)). If πάντων is all people, then (79) is simply a direct statement that wisdom is beyond the reach of people. This is obvious if σοφός means wisdom. But even if it means the wise being we reach the same conclusion on the assumption that the wise being is the object of wisdom (see below): if the object of wisdom is separate from us, then wisdom is clearly unattainable. But even if πάντων means all things, and σοφός means the wise being, we get essentially the same result: then (79) tells us that this being is in some sense transcendent, which only reinforces the implication of (78) that wisdom is beyond the reach of people (since the object of wisdom, the wise being, is beyond our reach). However, this still leaves ‘wisdom is separate from all things’ as a possible translation, and this does make sense in Heraclitus’ thought (see below).

30It does not wish to be called Zeus because of the traditional anthropomorphic associations of the name and some, if not all, practices of cult worship (cf. Clem. Prot. 2.22.2 (B14); 2.34.5 (B15); Iamb. Myst. 1.119 (B68); Theo. 68-9 (B5)); but wishes to be so called because Zeus is the most powerful, and wisest of the gods; because he is divine; and because he is associated with the thunderbolt that “steers all things” (Hippo. Ref. 9.10.6 (B64); tB) (Kirk: 1983, p. 203; Hussey: 1972, p. 36; Robinson: 1968, p. 88).

31Barnes (1987) has “the wise is set apart from all things”; and Marcovich (1967) has “… any other thing”.

32Essentially the same sentiment is reflected in another fragment, although instead of σοφός we have γνώμη insight: “For human nature has no insight, divine nature has” (Or. Celsus 7.12 (B78); tB).

33But even this does not exhaust the possible ambiguities of (79). Another possible translation of χωρίων is separate is greatly different (cf. Kirk: 1954, p. 399). This does not make much sense if πάντων means all people. The wise being is greatly different from all
Furthermore, these fragments ((75), (78) and (79)) are not the only ones that appear to define, partially or completely, (τὸ) σοφός or σοφή wisdom. There is also (108), which does state something that it is wise to understand (“that all are one”), and which is within the reach of human beings to understand (even if Heraclitus was the only person who did understand it). And we are also told that wisdom is to speak true and to act in accord with an understanding nature (80: Stob. Anth. 3.1.178 (B112)).

This, again, appears to tell us something that it is wise for human beings to understand. Hence, in spite of (78), it does appear that people can attain wisdom.

So in Heraclitus we find an echo of Homer. In the Iliad we found a statement (1) that at first blush seemed to mean that mortals were completely ignorant; but on closer examination this position could not be sustained. The same has happened here, but in relation to wisdom instead of knowledge. However, the similarity between Homer and Heraclitus should not be over-stated. For Heraclitus, as in the Iliad, the difference between gods and mortals is probably one of degree; and the degree of difference is great, as is apparent in the following:

The wisest of men, when compared to a god, will seem an ape in wisdom and beauty and everything else (81: Plato, H. Maj. 289b4-6 (B83); tB).

A man is called foolish by a god as a child is by a man (82: Or. Celsus 7.12 (B79); tB).

But, unlike the Iliad, the difference is not purely quantitative for Heraclitus. As we shall see, Heraclitus’ concept of wisdom, unlike the concept we find in the Iliad, is not something that could be increased by becoming ‘wise’, viz skilled, in one more thing such as charioteering or shipbuilding. Nor is greater wisdom due to seeing more things, as with knowledge in the Iliad: as we shall also see later, mortals cannot help but see all they need to see for wisdom; it is not limited empirical experience that diminishes their wisdom, but their inability to interpret this empirical experience. So the difference is one of intensity rather than quantity.

It may even be that Heraclitus uses (τὸ) σοφός in two different senses. One sense refers to people, the other to the cosmos (Kahn: 1979, pp. 155-6). However, Kahn does not accept that it is enough to simply say that there are two different senses of (τὸ) σοφός for “the ambiguity in this concept of things’ eliminates the implication of a transcendental being, but the suggestion that the wise being, hence wisdom, is beyond our grasp is still there (albeit somewhat weaker).

34 A more typical translation of the last phrase is ‘to act with understanding and in accord with nature’ (cf. Barnes: 1987; Robinson: 1987). The reason being that this seems more likely to be what Heraclitus meant given other fragments, especially (75). However, I find my reading more natural. And if this is a genuine fragment (and on purely stylistic grounds I find it hard to accept that it is verbatim Heraclitus), Heraclitus still probably meant to suggest the meaning of the more typical translation.
wisdom is deep and essential” (p. 172). This essential ambiguity between humanity and the cosmos is constantly reinforced by intentionally ambiguous uses of πᾶς all (either in the dative (πᾶσιν) or in the genitive (πᾶντων)), and may also be reinforced in the ambiguous fragment (75). The core of the essential ambiguity in the case of wisdom would be that, given his role as a unity underlying opposites, “god [the wise being] cannot here be essentially different from Logos”35 (Kirk: 1983, p. 191) – that is, the wise god is the object of human wisdom. God’s role as a unity underlying opposites comes out most clearly in the following:

God is day and night, winter and summer, war and peace, satiety and famine ...; but he changes like olive oil which, when it is mixed with perfumes, gets its name from the scent of each (83: Hippo. Ref. 9.10.8 (B67); tB).36 37

So the single divine being which alone is wise is probably the object of human wisdom (cf. Burnet: 1945, p. 167).38 Hence the wisdom of men is derived from divine wisdom by agreeing with it (cf. Kahn: 1979, p. 268).

The important point is that some kind of wisdom, even if it is a poor copy of that attainable by god, is attributed to human beings, hence (75) can still reasonably be taken as defining this human wisdom.

LIVING THEIR DEATH, DYING THEIR LIFE

Diodotus ... says that [Heraclitus’] treatise is not about nature but about politics and that the remarks on nature are there by way of illustration (84: DL 9.15 (A1); tB).

The essentially practical import that we found in words typically translated ‘wisdom’ or ‘wise’ (in ch. 1) is also found in σοφία(ς) wisdom up to the classical period. By Heraclitus’ time it is used in reference to all kinds of skills. It is most commonly applied to skill in poetry, but it is also applied to skill in particular crafts, in riddle-solving, and in statesmanship (Lloyd: 1987, pp. 83-5).39 Guthrie (1969, pp. 27-8) suggests that the general sense of

35 Although, to be more precise, I would have to say that god cannot be essentially different from that to which λόγος refers (see above).
36 This fragment suggests that god is immanent in the world, if not identical with it (cf. Kirk: 1983, p. 191), so transcendentalism cannot be the sense of (79) – ie. ‘the wise being is separate from all things’ is not a possible reading (but ‘the wise being is greatly different from all things’ is still possible (Kirk: 1954, p. 399; and see note 33)).
37 The connection between Heraclitus’ god and dynamic opposition is also suggested by saying that “war is father of all, king of all: some it shows as gods, some as men” (Hippo. Ref. 9.9.4 (B53); tB) – ie. war is father of gods and men. Both ‘the father’ and ‘father of gods and men’ are common epithets of Zeus in Homer.
38 This conclusion is further supported by the following: the thunderbolt in “the thunderbolt steers all things” (Hippo. Ref. 9.10.6 (B64); tB) implies that Zeus steers all things; the wise being is Zeus in some respects (see note 30); hence the wise being steers all things – ie. is the object of wisdom (75).
39 For a contrary position to this standard interpretation of σοφία and its cognates as referring to practical skills, especially to particular practical skills, see Kerferd (1976, esp. pp. 24-8). In particular he argues that the attribution of σοφία to poets was due not to their skill in
σοφία – as opposed to the attribution of σοφία to someone for being good at one particular craft or skill – developed as early as Hesiod (Clem. Misc. 1.4.25.2 (West fr. 306)).\(^{40}\) But that this general sense still denotes practical ability or good sense.\(^{41}\) And ‘wisdom is separate from all [other] things’ could be the sense of (79), the import of which could be that the one true wisdom is different from all the many other particular skills claiming the name of σοφία (cf. Kirk: 1954, pp. 398-9).

Now, whether the general sense is meant or not, wisdom must apply to life – this is a minimal requirement if it is to be practical. Therefore, if the point of understanding Heraclitean metaphysics is to gain wisdom, it would appear that Heraclitus was only concerned with metaphysics in so far as it applied to life. But, as soon as we accept this much, we seem compelled to accept that the application must be of both general and fundamental import. Metaphysical truths can hardly be expected to be aids to, say, charioteering and charioteering alone. Rather, it seems that his metaphysics was secondary to the most basic question ‘how should I live?’: “his aim is to conceive the relationship of life and death within a universal doctrine of opposition, transformation, and hidden unity” (Kahn: 1964, p. 194).

But just how does understanding the λόγος help us in life? The obvious answer would be that appreciating that life giving way to death, and youth to old age, is a part of the most fundamental structure of the cosmos should help us to become resigned to these nasties that beset us all. But I would say that it goes a little deeper than that. It is not just that we should accept death and old age, but that we should be glad of them: we should be glad of death if we enjoy life since we cannot have life without death, or health without sickness etc:

Sickness makes health sweet and good, hunger plenty, weariness rest (85: Stob. Anth. 3.1.177 (B111); t8).

Sickness makes health good since this cosmos in which mortals live, let alone live healthily, could not be without opposition, including that of sickness and health: “all things ... have their source in antipathy and war” (74). And it is in this sense that “to god all things are fair and just” (Por. Hom. 4.4 (B102); B) (this god is presumably the same one that is perfectly wise). Death, for example, is fair and just not because death is actually good, but life is, and life requires death – that is, life with death is better than no

\(^{40}\) This at best, however, denotes a transition to this general use, since it still entails more than one form of wisdom: Hesiod refers to Linus as παντοτις σοφις δεδακτος having learnt every kind of wisdom.

\(^{41}\) And, although it is what the poets say that makes them wise, much of this is practical instruction, contra Kerferd (see note 39), and moral advice (Guthrie: 1969, p. 29).
life at all, and life without death is not possible. And likewise for sickness, hunger, etc. 42

There is one aspect of Heraclitus’ philosophy that these conclusions may seem to be inconsistent with – namely, his view on the afterlife. The argument that we should accept death because it is a necessary consequence of life is completely redundant if humans have an immortal soul that survives bodily death. So did Heraclitus believe in such an immortal soul, as some commentators suggest? The following fragment does seem to say that human souls die:

For souls it is death to become water, for water death to become earth; but from earth water comes into being, from water soul (86: Clem. Misc. 6.2.17.2 (B36); tB).

Nussbaum (1972/2, pp. 153-70) argues that indeed this is the case, and, to be more precise, the soul dies at bodily death. But there are other fragments which suggest that the ψυχή soul survives bodily death. (102) is dismissed by Nussbaum as satirical – Homeric shades, which are nothing but breath, cannot see in Hades so they must get by with smelling “but how could breath itself sniff? ... absurd” (pp. 156-7). That “there await men when they die things they neither expect nor even think of” (Clem. Misc. 4.22.144.3 (B27); tB) could, then, mean that nothing awaits them after death, not even the partial existence as shades, which is what Heraclitus’ Greek contemporaries did expect (p. 158). The survival of ψυχή after bodily death is also suggested by “souls slain in war are purer than those (that perish) in diseases” (Arrian 4.7.27 (B136); tr. Kirk: 1983): what does this purity matter if immediately on attaining it the ψυχή ceases to exist? This is an imitation and not a true fragment of Heraclitus, but even if accepted, it could easily be dealt with by Nussbaum: “fame among mortals” (Clem. Misc. 5.9.59.5 (B29)) is what matters (cf. pp. 160-5). A similar explanation easily counters the suggestion that “greater fates win greater shares” (Clem. Misc. 4.4.16.1 (B25); tB) refers to the shares of something in the afterlife: “greater shares” could refer to a society’s greater glorification of those who die in battle (Kahn: 1979, pp. 232-3).

The passage that most strongly suggests an afterlife is the following:

There they are said to rise up and to become wakeful guardians of the living and the dead (87: Hippo. Ref. 9.10.6 (B63); tB).

This suggests that the warrior (Arrian 4.7.27 (B136)) and other dry souls (Stob. Anth. 3.5.8 (B118)) are rewarded after death by becoming demigods – “wakeful guardians” (Robinson: 1986, pp. 308, 311; Kahn: 1984, pp. 199-200;

---

42 If this is right, then Heraclitus’ concern with wisdom is due to its significance: we should understand the λόγος in preference to knowing many things because the first is what matters (cf. Kahn: 1964, p. 196). If this is the case, then there seems to be no plausible reason to explain Heraclitus’ focus on understanding the λόγος in terms of this being required for true knowledge (Curd: 1991, esp. p. 536), or the like. The preference has to do with the object of understanding, not with understanding being a superior epistemic state to untrue(?) knowledge of the same objects (even though, as we have seen, understanding probably was meant to be a different epistemic state than knowledge).
To get (87) to conform to her analysis, Nussbaum must emend the text, and for reasons I find unconvincing and forced. Her interpretation is essentially that ‘the image of the dead arises before those wakeful of their fame’ (pp. 166-8). She admits that her reading is speculative “and serves merely to show that this fragment can be interpreted in various ways, and cannot be taken as basic or strong evidence for theories of resurrection of ψυχή” (p. 168). However, the most natural reading of (87) implies the survival of bodily death; and demonstrating that this implication can be removed by a thoroughly unnatural interpretation does not show that (87) is not strong evidence for such survival.

But how is (87) to be reconciled with (86)? Verdenius (1976, pp. 32-3) makes an elaborate attempt to reconcile these by identifying the souls of (86) with perishable phenomenal fire and the souls of the wakeful guardians (87) with the ever-living fire behind the phenomenal world. But the simple fact is that no such reconciliation is required: there is no tension (Robinson: 1986, p. 306) or confusion (Nussbaum: 1972/2, p. 156) to be resolved here. (87) implies that at least some mortals survive bodily death. Doubtlessly it is the ψυχή that survives, being in Heraclitus the seat of intellect and personality (Robinson: 1986, pp. 307-8; Nussbaum: 1972/1, esp. pp. 8-9). So (87) implies that the ψυχή survives bodily death; while (86) implies that the ψυχή is not immortal. Logical conclusion: the ψυχή survives bodily death but not forever, eventually even the “guardians” die. And the argument that we should accept death because of its necessity for life is only redundant if humans have an immortal soul.

Now, if this concern for the human condition is central to Heraclitus’ thought, then he is much more in tune with his predecessors than his own words suggest. A number of scholars attribute the same central concern to Homer. Taplin (1991, p. 57) gives pre-eminence to the theme of men living life as it should be lived given the inevitability of death. Kitto (1951, p. 61) also sees that the tragedy of the Iliad is the result of the Greek “passionate delight in life, and clear apprehension of its unalterable framework”. While for Hammond (1987, pp. 15-6) the reference to a brief fragment of a major war “allows the poem’s scope to expand to the presentation of a universal and tragic view of the world, of human life lived under the shadow of death, against a vast and largely unpitying divine background” (cf. esp. Il. 6.145-9, 21.462-6). But Homer laments this state of affairs (Il. 18.94-111, 21.462-6), and this is where he errs; hence he “deserved to be thrown out of the games and flogged – and Archilochus too” (DL 9.1 (B42); tB).

But why Archilochus too? In Archilochus we find a position even closer to Heraclitus: he calls for a measured response to the changing fortunes of life – that we “understand the rhythm of man’s rise and fall”

And this position of “wakeful guardian” could also be the greater share won by greater fates.

Heraclitus’ complaint against Homer in (74) refers to this passage – specifically, line 107.

Perhaps Heraclitus was ignorant of Mimnermus, but if he was not, this suggests that Heraclitus was inclined to criticise those closest to him: in Homer there is at least a sense of resolve against this lamentable death; in Mimnermus (Stob. Anth. 4.34.12 (Diehl fr. 2); cf. Alcman (Antigonus 23 (Page fr. 26))) we find nothing but prolonged sulking as to our mortal condition (see note 53).
(Stob. *Anth.* 3.20.28 (Diehl fr. 67); tr. Fränkel: 1973; cf. 4.56.30 (fr. 7); Plut. *Poetry* 23ab (fr. 10); Aesch. *Prom.* 616 (fr. 11)). But another often noted similarity between Heraclitus and Homer is that they applaud the quest for glory *because* of our mortality (compare *II.* 12.322-8 to Clem. *Misc.* 5.9,59.5 (B29)). And here they both differ from Archilochus, who preferred to save his life than to save his shield (Sext. *Pyrrho.* 3.216 (Diehl fr. 6)): an inglorious act (cf. Fränkel: 1973, p. 137)!

**HOW NOT TO FIND WISDOM**

We now have some account of what wisdom is, and why it should be sought. Given that it is so important to our lives, it is fortunate that it is in fact *attainable*. But how is it attained? This is the most difficult question, but I can shirk it no longer. Or can I? We can perhaps begin by examining how wisdom is *not* attained.

Heraclitus was not greatly impressed with many, if any, of his predecessors, as is apparent from the following:

Pythagoras, son of Mnesarchus, fashioned inquiry the most of all men; and selecting from these writings he constructed a wisdom for himself, much learning, poor art (88: DL 8.6 (B129)).

Much learning does not teach sense: otherwise it would have taught Hesiod and Pythagoras, and moreover Xenophanes and Hecataeus (89: DL 9.1 (B40)).

Guthrie (1962, p. 415) and Burnet (1950, p. 58) take these attacks to illustrate that wisdom or sense was not a knowledge of many things, but of only one – the λόγος. This contrast of wisdom with much learning, or knowledge, was not exclusive to Heraclitus. Aeschylus wrote: “Not that he who knows many things is wise, but he who knows what is profitable” (Stob. *Anth.* 3.3.1 (Nauck fr. 390); tr. Guthrie: 1962).

Barnes (1979, pp. 145-6) argues that Heraclitus was really denouncing learning from the testimony of others. He argues that the interpretation given by Burnet and Guthrie contradicts the following:

---

46Following Marcovich (1967, p. 64) in dropping ξειν from Diels text.
47ἀντις *moreover* suggests the separation of Hesiod and Pythagoras from Xenophanes and Hecataeus. Marcovich (1967, pp. 64-5) suggests that this could be because the first two were dead, the latter two still alive. Robinson (1987, p. 107) suggests that the distinction is more significant: it is meant to imply that the preceding truth applies to experts old and new – i.e. Heraclitus is reinforcing the generality of the truth that *πολυμονθή* much learning is not sufficient for *νόος* sense.
48Something similar is attributed to Thales: “Search out one wise thing” (DL 1.35 (11A1)).
49The Homeric use of the prefix πολικ- with knowledge terms only ever designated a greater *quantity* of knowledge, not a greater *intensity*; so *πολυμονθή* much learning may refer to broad *and superficial* knowledge as opposed to a *deep* knowledge of the one thing that matters. This fits with the hiddenness of the λόγος – the one thing that matters (Pritzl: 1985, p. 308).
Philosophical men must know well very\(^{50}\) many things (\(90:\) Clem. Misc. 5.14.140.5 (B35)).

Guthrie (1962, p. 417), however, takes this fragment to be ironic, especially since in Heraclitus’ time the term ‘philosopher’ was probably applied in particular to Pythagoras and his followers.\(^{51}\)

My own inclination is that Heraclitus held both of these theses: (T) the testimony of others is worthless; and (K) much learning, or knowledge, does not provide wisdom.\(^{52}\) Both of these theses can have a strong or weak reading. (T) could be either (Ta) the testimony of others is always worthless, or (Tb) the testimony of others alone is worthless – that is, without also searching for oneself. I presume Heraclitus held the weaker reading (Tb), since he was critical of others for not comprehending what is said to them ((107) and (109)), especially when he was speaking (76). (K) could be either (Ka) much learning is neither necessary nor sufficient for wisdom (this seems to be the position of Guthrie (1962, p. 417) and Burnet (1950, p. 58)),\(^{54}\) or (Kb) while much learning may or may not be necessary for wisdom, it is not sufficient (cf. Kahn: 1979, pp. 107-8). Only the strong reading (Ka) is inconsistent with the literal (non-ironic) sense of (90), since (90) implies only the necessity of much learning. Now, Heraclitus does cast his eye over a large variety of subjects in accumulating his examples of unified opposites, suggesting that much learning is at least useful, if not necessary: this suggests (Kb) (McKirahan: 1994, pp. 138-9). However, against this, many of his examples are commonplace, so, although they range over a large variety of subjects, they do not require all that much inquiry (see below). I maintain that Heraclitus held both of these theses (the weak version of the testimony thesis (Tb), and one or the other version of the knowledge thesis (K)) simply because there is sufficient textual evidence for both besides (88) and (89).

---

\(^{50}\)Robinson (1987, p. 104) and Marcovich (1967, p. 26) argue that εὖ μᾶλα well very governs κρίνει must, giving us something like ‘philosophical men ought very much to know many things’.

\(^{51}\)But it has been questioned whether ‘philosophical men’ should be taken as part of (90) (Tejera: 1991, p. 510; Marcovich: 1967, pp. 26-7, who would also subtract εὖ μᾶλα). If it is not part of (90), we are left with ‘it is necessary to know (well very) many things’, which removes the ironic interpretation and would leave us with an unambiguous affirmation of the need for knowing many things (although ‘the many’, of whom Heraclitus is critical, has also been supplied as the subject (cf. Marcovich: 1967, pp. 27-8)).

\(^{52}\)This may be an example of intentional ambiguity in (88) and (89) (cf. Kahn: 1979, p. 91).

\(^{53}\)The inclusion of both Xenophanes and Hecataeus in (89) suggests that a further target of Heraclitus’ scorn could be the verisimilitude theory that we saw in chapter 3, since we found in Hecataeus (61) an expression of verisimilitude similar to that of Xenophanes (58) (Snell: 1953, pp. 143-5). But we should note that no such expression of verisimilitude is found in either Hesiod or Pythagoras, so if anything this is a sub-theme of the fragment (and the point of αὐτὰς more or less may have been to mark off this sub-theme (see note 47)). Heidel (1943, p. 261) suggests that another common trait of those listed in (89) that may have been Heraclitus’ target is their “self-conscious individuality”. This is a property Heraclitus shares with those he criticises, and this tendency to criticise those closest to himself may be reflected in his criticism of Homer and Archilochus in a different context (see note 45) (cf. Kahn: 1964, pp. 191, 194).

\(^{54}\)Much learning is not necessary for wisdom implies that (i) wisdom is not constituted of a large amount of learning, and that (ii) much learning is not needed to get to wisdom. To attribute just (i) to Heraclitus, but not (ii), would be a variant on the weaker thesis (Kb).
As we saw (in ch. 3), the πολυμορφή much learning of Xenophanes and Hecataeus (89) is probably a kind of ‘fact-finding’ inquiry. This involved the accumulation of as many relevant facts as possible and both travel and the testimony of others as means for this accumulation of facts.55 Xenophanes at least did not collect facts for their own sake, but as evidence for theories about the basic nature of the universe. However, his theory is not Heraclitus’ λογος, hence, all the same, the facts did not ‘teach him sense’. So these two elements to Heraclitus’ negative epistemology ((T) and (K)) are probably direct criticisms of the empirical methods of his predecessors: the object of amassing numerous facts is eschewed; and the means of listening to the testimony of others is picked out for particular criticism. Furthermore, the commonplace nature of the observations Heraclitus finds significant suggests that he is particularly critical of the accumulation of diverse and exotic facts such as those that would result from extensive travel.56

That testimony is of little or no value by itself, I believe, is the meaning of the following:

Eyes are more accurate witnesses than ears (91: Poly. 12.27.1 (B101a); tB).57

Testimony is received by the ears, so ‘ears’ could be figurative for testimony here. If one accepts this, it is natural to suppose that ‘eyes’ too is being used figuratively for the senses as a whole (including the ears where they are not listening to what another says) (cf. Kahn: 1979, p. 106). However, I will argue later that Heraclitus presents a number of signs that are meant to help us penetrate to the hidden nature of the cosmos. For now we need only note that these signs are predominantly visual, and this seems to have been no accident. So Heraclitus may well have inherited the same bias for eyes over the other senses that we found in Homer (see ch. 1).58 Might (91), then, be a statement of this bias? That is, the sensory input of the eyes is more exact than the sensory input of the ears. There are difficulties with this interpretation, however. The claim that the sensory input of the eyes was 55πολυμορφή (and πολλά διδασκόμενος learning many things (2.2)) is associated in Plutarch with travelling (Sol. 2.1). Interestingly, it is also associated with σοφία (2.1). If this latter association existed in Heraclitus’ time, his criticisms of the term πολυμορφή specifically may have been motivated by disdain for this association. Unfortunately, there are some 500 years between Heraclitus and Plutarch so it is questionable whether these associations already existed in Heraclitus’ time.

56We should note that according to lamblichus “inquiry” [ιστοριή] was the name which Pythagoras gave to geometry” (Pyth. 89; tr. Robinson: 1968). So the reference to ιστοριή inquiry in (88) could relate to this. The point of (88) would still seem to be that Pythagoras relied on the (written) testimony of others, rather than his own efforts, in the construction of ‘his’ geometry; but ιστοριή could hardly then relate to the fact-finding inquiry of Xenophanes and Hecataeus.

57The authenticity of this fragment is disputed (Pritzl: 1985, p. 306; Marcovich: 1967, p. 23).

58Kirk (1983, pp. 205-6) notes that in Sext. M 7.129 (A16) the λόγος enters people through “the channels of perception”. In so far as the λόγος can be identified with fire (see note 112), the eyes, being where light enters, would be the most potent channels. However, even if this physiological superiority could be accepted without question, it does not seem to follow that it would make the eyes more accurate witnesses (but see my ‘speculative note’ below).
more useful, say, would make sense (human beings do rely on the sensory input of the eyes far more than the sensory input of the ears), but in what way are eyes more accurate than ears? Testimony simply is the best candidate for an inaccurate supply of information. Furthermore, the fact that the contrast is between different kinds of μάρτυρες witnesses does suggest that testimony is what is being derided.\(^{59}\) Now, (91) does not claim that ears are totally inaccurate, which does suggest that they are still of some value, although possibly only if checked by the eyes – hence, (91) seems to support (Tb) rather than (Ta).

This interpretation of (91) is complicated by the following fragment, in which hearing seems to be on a par with sight:

As many things as are seen, heard, perceived\(^{60}\): these I prefer (92: Hippo. Ref. 9.9.5 (B55)).

Taking ‘ears’ to be figurative for testimony in (91), but hearing to be literal in (92), would seem to be the simplest way to explain why seeing and hearing are on a par in (92) but not in (91). However, there is no apparent role for just hearing noises in Heraclitus’ thought. So the distinction is still probably that certain things said are inaccurate (91), but certain other things said are as useful as seeing (92). As to what things heard are on a par with seeing, this can only become clear when we have some account of how wisdom is attained. For now we need only note that these do come out as certain things said that can be readily seen for oneself, thus, again, supporting (Tb) over (Ta).

But whatever we make of (91) and (92), there is other textual evidence that Heraclitus thought that testimony was worthless by itself:

We should not accept poets and mythologists as witnesses of things that are unknown, since for the most part they furnish us with

---

\(^{59}\)Robb (1991, pp. 664-6; 1986, pp. 331-2) suggests that fragment (91) evokes the procedural witness of ancient Greek law. Now, as Robb (1991, esp. pp. 646-54) thoroughly argues, in ancient Greek law witnesses were procedural, not accidental: the witnesses were arranged by the parties to witness some event, such as the loaning or repaying of money, so as to give account of what they saw and heard at a later procedure if necessary – that is, they served essentially the same role that written records serve today; a witness was not someone summoned before the court to recount some event he just happened to see, as in modern law courts. ‘Eyes’ in (91), then, refers to the eyewitness account given at a later procedure, which is admissible; and ‘ears’ to hearsay – ie. the word of someone who witnessed nothing but is only recounting what an eyewitness told him – which is inadmissible. This would make ‘ears’ figurative for testimony (although Robb would prefer to say that they rather provoke an image of these features of the law courts, rather than being a merely figurative usage), and ‘eyes’ would mean just eyes, with the possible additional implication of being there. Robb (1991, pp. 662-3; 1986, p. 131) also suggests that ‘eyes’ and ‘ears’ in (105) should be taken as invoking a picture to his fellow Ionians of a law court with non-Greek speaking witnesses – hence what they see for themselves (their ‘eyes’) and what they hear for themselves (their ‘ears’) are both worthless (In his 1986 article Robb seems to claim that ‘ears’ denotes recounting (at a later procedure) what was witnessed rather than what was heard when witnessing (p. 131), but to have, rightly I believe, changed his position in his 1991 article (pp. 662, 666)). This courtly picture does make (105) easy to relate to (107) – indeed, on Robb’s interpretation, it seems to say nothing different (1991, p. 663; 1986, p. 333).

\(^{60}\)Following Marcovich (1967, p. 21).
unreliable testimony about disputed things (93: Poly. 4.40.2 (A23); tr. Bywater: 1969).

A foolish man is put in a flutter by every word (94: Plut. Lect. 40f (B87); tB).

Of course, these two passages provide little evidence on their own: (93) does only refer to the testimony of poets and mythologists, it says nothing about the testimony of philosophers or the ordinary man on the street; and (94) may simply mean that fools alone cannot distinguish bad testimony from good (but, then, this may well be because it is only a fool that does not check its worth for himself). In other words, neither fragment expresses the thesis of the worthlessness of testimony with sufficient generality.

However, all things considered, it seems unlikely that Heraclitus would have said that some testimony can be accepted on authority alone. On the other hand, he does seem to allow that some testimony should be listened too. Those who will not listen to anything new seem to be criticised in “dogs bark at those they do not know” (Plut. Old Men 787c (B97); tB). And that a few are worth listening too, so we must be discerning about who we listen too, is the clear import of the following:

What sense or thought ... do they have? They follow the popular singers and they take the crowd as their teacher, not knowing that most men are bad and few good (95: Proc. Alcib. 256.2-4 (B104); tB).

The touchstone by which discernment is achieved is presumably one’s own experience (George: 1993, pp. 12-5). His concern with the value of testimony may be due to the conjectural nature of the work of both his poetical and philosophical predecessors:

Let us not make aimless conjectures about the most important things (96: DL 9.73 (B47); tB).

As for the thesis that much learning does not provide wisdom, we have already been told that wisdom is one thing (75). However, we cannot be certain that this unity of wisdom is opposed to a plurality of knowledge: it may, as we saw, be opposed to the plurality of particular skills that were also designated by σοφίαwisdom. So this one wisdom could still be equated with the accumulation of much learning. It is only when we see just what is required to gain wisdom that this becomes implausible. And, of course, the contrast could be with both of these pluralities. We should also note that έναςone is often used by Heraclitus to denote not one of a number of things, but the interconnection of a number of things into a unified whole ((71), (108) and (117)). If the same meaning is intended here, then the criticism of πολυμορφία would contain a criticism of much unconnected learning, not much learning itself. And this would suggest that much learning could still be necessary, or useful, for wisdom, but not sufficient – that is, (Kb) rather than (Ka).
section summary

In this section I have dealt with two distinct elements of Heraclitus' thought: the criticism of testimony and the criticism of much learning. I have done this because these elements overlap in certain fragments: πολυμαθησις simply means much learning, but in (88) written testimony is the principal means for attaining this learning; and testimony was probably an important part of the method of Xenophanes and Hecataeus (89). Although these elements are interconnected in Heraclitean thought, these interconnections are not made particularly apparent simply by their overlap in these fragments. So for now I will simply list the distinct conclusions:

(i) Heraclitus was critical of the testimony of others that is simply taken on authority and not checked for oneself.
(ii) He also thought that much learning was at least not sufficient for wisdom, and possibly not necessary either.

THEY HAVE EYES, YET THEY DO NOT SEE

So we now know a couple of things to avoid in the all important quest for wisdom. But what was Heraclitus' positive account of how wisdom is to be attained? We have already seen that Heraclitus had a low opinion of his poetical and philosophical predecessors, but he was no more impressed with the common run of humanity. The fragments in which he expresses his opinion of people in general give us our first clue to just how wisdom is attained. Essentially what we get from these is the thesis that (a) the senses are not sufficient for wisdom, and possibly that (b) they are necessary for wisdom:

That which they most commonly associate with (the λόγος governing the universe), this they are at variance with (and these things which they meet with throughout the day, these things appear foreign to them) (97: Aur. Med. 4.46 (B72)).

61 Robinson (1987, p. 129) and Marcovich (1967, p. 18) argue that the parts of this fragment in brackets '()' are glosses by Aurelius. If this is so, at least of the first bracketed item, this removes the only real problem with the thesis that the λόγος is propositional (and one problem for Barnes' thesis that λόγος just means account), but causes a significant problem for my argument that wisdom is understanding the λόγος (see above). This problem is not irreparable. Firstly, the candidates in the extant fragments for what steers all through all are opposition, god and fire. We have already seen that god is, possibly amongst other things, the unifying principle underlying this opposition; and there are fragments that suggest an identification of fire with god (Hippo. Ref. 9.10.7 (B64,66), and fire with opposition, at least at the elemental level (Clem. Misc. 5.14.104.1 (B30); Plut. E 388de (B90)) – i.e. all candidates for what steers all through all come to one viz the principle of opposition. Furthermore, given that "the world ... was always and is and will be" (Clem. Misc. 5.14.104.1 (B30); tB), the claim that all things come about in accordance with the λόγος (76) cannot refer to the initial generation of the universe, but to the generation of individual things over time, and this may reasonably be considered at least a part of what is involved in steering all through all. In short, connections can be made between the steering of all through all and...
For most do not understand such things, as many as they meet with, nor do they perceive although they have learned, but they think for themselves (98: Clem. Misc. 2.2.8.1 (B17)).

These two fragments tell us two important things: (i) we meet with the λόγος in our everyday experiences; (ii) most people fail to make sense of this λόγος that they meet in everyday experience. And I think it is implicit in these two fragments that (iii) the λόγος is common (to us all). This is further suggested by the following:

Consequently one must follow the common ... but although the λόγος is common, most people live as if they have a private understanding62 (99: Sext. M 7.133 (B2)).

"The λόγος is common" probably does allude to the idea of the λόγος being common to all things, as is reflected in (76); but the broader context makes it clear that Heraclitus also wants to say that the λόγος is common to all people – that is, it is in some sense a perceivable feature of all things. If it were common to all things in a way that was imperceptible (as atoms are considered to be common to all things), then it would not make sense to criticise the majority of people who still "live as if they have a private understanding" (cf. Kahn: 1979, esp. pp. 101-2; Kirk: 1954, pp. 55-6).63

Furthermore, by saying that the λόγος is common, Heraclitus is not just saying that we all experience it, but that (iv) it is public.64 ξυνός common often has this sense of public. And that it should be taken in this sense here is clear in the following, where what is common is more directly contrasted with what is private:

opposition without "the λόγος governing the universe", however, even taking these other connections together, we simply do not have as strong a connect without this phrase.

The central idea of (97) is probably reflected in (76): "they are like the inexperienced" suggests that they are experienced, that they have experienced the λόγος since they meet with it every day, but are still at odds with it (cf. Kahn: 1979, p. 99).

62 Kirk (1954, pp. 60-1) argues that the φρόν- root "has different shades of meaning, from 'understand' to 'perceive'", hence φρόνης understanding here is "best interpreted as including both the idea of actual perception and that of drawing the right conclusion from this perception". He also throws in the idea of acting on the practical results of this perception (this last idea being implied by the use of ζωλίνει live). The private φρόνης would, then, have to be taken as asserting the absence of these. I suspect that Kirk is reading a little too much into this one word. However, his interpretation does fit well with the following interpretation of Heraclitean epistemology, not only in the contrast between perceptions simpliciter and the right interpretation of these perceptions (see below), but also in the argument that the point of this interpretative exercise is ultimately for the purpose of living aright (see above).

63 So here we probably have another example of intentional ambiguity (Kahn: 1979, p. 91). And the ambiguity is between people and things, the human and the cosmic, as is common with Heraclitus.

64 Pritzl (1985, pp. 305-9) argues that Heraclitus preferred sight and hearing over the other senses, and suggests that this may be due to their objects being more public than the objects of the other senses. This, he argues, is suggested in their attribution as "witnesses" in (91) – the function of a witness being to bring something to public attention (see note 97). However, bringing something otherwise private to the public attention is more the role of an accidental witness than a procedural witness (see note 59).
Method and epistemology in the early Presocratics

For those awake the world is one and common, but of those falling asleep each one turns away into a private [world] (100: Plut. Super. 166c (B89)).

So the λόγος, the object of wisdom, is a part of the everyday public experience of us all. I do not see that the everyday public experience of us all could be other than sensory experience. Yet, in spite of having sensory experience of the λόγος, we fail to understand or make sense of it. This is more than enough to see that Heraclitus believed that sensory experience was not sufficient for wisdom. If it were sufficient, most mortals would have wisdom: we can safely assume that Heraclitus believed that most mortals have sensory experiences.

However, it does not follow from the proposition that we do have sensory experience of the object of wisdom that sensory experience is necessary for wisdom. But it is important to note that Heraclitus is criticizing the mass of humanity for not understanding the λόγος, even though they have sensory experience of it. This suggests, at least, that sensory experience is a useful aid to finding wisdom, but this still is not enough to be sure that, for Heraclitus, sensory experience was necessary for wisdom. (92) might seem to imply more than the mere usefulness of the senses. If Heraclitus' epistemological concerns were limited to understanding the λόγος, why would he honour sensory information more than any other if there were some route to this understanding without the senses? However, Heraclitus may have mentioned some other particular way of learning immediately before (92), so it was not that sensory perception was honoured more than any other way of learning, but that

---

65The word used here for common is the later form of ξυνός, κοινός. Kirk (1954, pp. 63-4) argues against the authenticity of this fragment, although not because of the late form κοινός, which he accepts may have been "a single alteration by Plutarch for the sake of clarity", but essentially because he believes that κόσμος must mean world in (100), but could not have meant world in Heraclitus' time (pp. 311-4; cf. Coxon: 1986, p. 189). Against this, it has been argued that κόσμος does mean world in "the κόσμος ... neither a god nor man made" (Clem. Misc. 5.14.104.2 (B30)) (Marcovich: 1967, p. 99). But Kirk is right that κόσμος could easily mean world-order here (pp. 314-5). However, I see no reason why κόσμος in (100) could not also mean world-order: both εἰς one and ξυνός common are attributed to the λόγος or opposition that is the ordering principle of the world. Furthermore, although the exact wording is probably not preserved (it is in indirect speech and κοινός is almost certainly not authentic), this is not sufficient to deny that Plutarch has preserved the essential thought of Heraclitus – in particular, the direct contrast between common and private (cf. Robinson: 1987, p. 138).

Against the thesis that κόσμος could not have meant simply world in Heraclitus' time, κατὰ κόσμον in Parmenides (134) seems to me to read most naturally as throughout the world, not just as opposed to in order (Coxon: 1986; Kirk: 1983; Tarán: 1965) but even to throughout the world-order. That is, any reference to order seems inappropriate. Although Tarán (1965, p. 48) accepts that κόσμος can have the meaning world in the 400's BC, he still favours the translation in order for κατὰ κόσμον in (134). World is ruled out because the 'scattering' of being is a mental act. However, this 'scattering' can just as easily be seen as the object of thought. Once this is accepted, there is no reason to read an ordered scattering into (134) – even if the scattering were ordered, such order would seem to add nothing to the point of (134) no matter how it is interpreted. That the reference is to the world, however, certainly does add to the point of the fragment (see ch. 6).
sensory perception was honoured more than some other particular way.\textsuperscript{66} Still, the reiterative style of (92) does suggest that the preference is strong. So these considerations taken together make it plausible to believe that Heraclitus thought that sensory experience was necessary for wisdom.

There are two further points that we must consider here. Firstly, Heraclitus' criticism of people for their failure to see the λόγος to see what is right in front of their eyes, does not fit well with the fragments confessing that it is difficult to find the true nature of the cosmos ((65) and (66)).\textsuperscript{67} There is a tension between these two themes. Claiming that perception is not sufficient for understanding the λόγος merely implies that wisdom is not automatic—it does not imply that wisdom is difficult to achieve. Indeed, the tone of the above fragments (esp. (97) and (98)) implies that it is not difficult at all—if it was, why be so critical? But, presumably, the claim that the task is difficult should be taken literally, and this difficulty is just not a sufficient excuse for failing to understand the common λόγος. The severity of his criticism may be aimed more at the failure of the majority to even get started on the road to wisdom, but this does not seem to be what is meant in (97)–(99): their failure is to actually succeed in grasping what is common. But since what is at issue is understanding what is most important if we are to live our lives aright, it is understandable that there is a strong moralising tone in Heraclitus' criticisms: since what is at issue is of the first import, each person should give all his effort to achieving this understanding. And, presumably, Heraclitus felt that this effort would be sufficient for even the dimmest of us to overcome the difficulties involved in the task. A second related tension is between the everyday occurrence of the λόγος and its scarcity ((65) and (66)). This tension cannot be resolved, however, until we have a more complete account of the way wisdom is to be attained. Before doing this we must consider what the role of the senses in Heraclitus is not.

**EMPIRICISM**

I have tried to show that Heraclitus was primarily concerned with understanding, or rather a particular kind of understanding which he calls wisdom, rather than knowledge; and I have tried to show that his concern with sensory experience is due to this being necessary for wisdom, not knowledge. But it has been claimed that Heraclitus was an empiricist, that he thought that (E) all knowledge is ultimately derived from sensory experience.

We must examine the evidence for this. But first I must make it clear just where I disagree with the empiricist thesis. I only wish to deny that Heraclitus held (E) as a conscious philosophical theory. There is no particular reason to doubt that he accepted the unconscious empiricism of the Iliad, especially since there is no sign of a priori reasoning in his

\textsuperscript{66} And προτίμω prefer does carry this implication of preferring one thing to another.

\textsuperscript{67} (64) is normally included here, but I do not see that the claim that something is hidden, or likes to hide, necessarily implies that it is difficult to find.
thought. But he did not consciously believe (E) because he simply was not concerned about knowledge. It might be countered that he did, however, express a conscious empiricism about wisdom. Although I accept that this is possible, I do insist that this conclusion is far from certain. There are three things I must do to establish these points. Firstly, I must explicitly demonstrate that the fragments that clearly imply an epistemic role for the senses do not imply any stronger connection between the senses and knowledge than that some knowledge is gained through the senses. Secondly, I must demonstrate that even if the senses are a necessary condition for wisdom, this does not necessarily imply even an empiricism of wisdom. Thirdly, there are some fragments which could imply empiricism, but I must demonstrate that they are of little or no help at all in fleshing out Heraclitus' epistemology: either because they are open to too many alternative interpretations ((101) and (102)), or because the reading that suggests empiricism seems to be at odds with the rest of Heraclitus' epistemology (103).

So what connection between the senses and knowledge do the fragments suggest? On the above formulation (E), fragment (92) may appear to present us with an expression of empiricism (cf. Barnes: 1979, pp. 146-7). However, (92) alone does not warrant attributing empiricism to Heraclitus, quite the contrary. In (92) Heraclitus seems to be comparing empirical knowledge with another source of knowledge: we might paraphrase it as 'the best [of these kinds of] knowledge is that knowledge gained through the senses'. Better in what respect? If I am right in supposing that Heraclitus' concern was not with knowledge but wisdom, then, presumably, sensory information is better in respect of providing (aiding the quest for, or such like) wisdom; but, of course, (92) itself does not tell us this.

However, (92) is not the only textual evidence presented to support the claim that Heraclitus was an empiricist. I have claimed that the main point of (91) is a negative one – namely, the worthlessness of testimony – yet some positive value is clearly being given to the sense of vision. And the claim that eyes are better witnesses does suggest that this superiority is fairly general – that is, eyes are probably better than ears in relation to more than just understanding metaphysics. But, firstly, (91) does not say that sight provides the only witness that is better than testimony. And, secondly, the claim that it is generally better to see for oneself than to listen to others hardly presupposes the conscious acceptance of empiricism (E).

Empiricism also seems to be implied in (98). I have already argued that the 'things people meet with' involve the objects of sensory experience. Hence (98) does seem to say that people μαθήσαν have learned of these objects of sensory experience; and what has been learned is typically knowledge. So (98) does seem to imply a connection between knowledge and sensory experience. But the most this fragment tells us is that people do gain some knowledge through the senses. There is no suggestion of a necessary connection between knowledge and the senses, let alone (E).\footnote{\textit{γινώσκω} perceive in (98) can also mean know, but it should probably be taken to imply something other than knowledge here: most people are said not to \textit{γινώσκω} although they \textit{μαθήσαν} have learned; what has been learned is typically knowledge; hence \textit{γινώσκω} is not knowledge (see above).}
But I have argued that the connection between the senses and wisdom is probably such that the senses are necessary for wisdom. However, this is not enough to imply even an empiricism of wisdom: ‘wisdom (or knowledge) requires sensory experience’ is a weaker thesis than ‘wisdom (or knowledge) is ultimately derived from sensory experience’. We can see this by outlining how a rationalist, who believes that all wisdom, knowledge, or the like, is ultimately derived from reason, might still find the senses necessary. Such a rationalist could hold that the senses are a necessary aid for the weak human mind to attain a certain epistemic state. For example, Plato in the *Republic* (516a7-516c3) (although certainly not in the *Phaedo* (65a9-d2)) seems to have held such a view (of knowledge) in the need to work one’s way up from visible images to the apprehension of reality. The visual aids are needed simply because it is beyond our limited human capacities to move directly onto the true means of attaining knowledge—the purely rational process of dialectic. That is, the senses are necessary, but only to exercise the rational faculties that must then derive the truth from purely rational principles alone.69

But now to turn to those fragments which might seem to imply empiricism, but from which little can in fact be gleaned. A particularly strong empiricism might be suggested by the following:

If all the things that exist were to become smoke the nose would distinguish them (101: Arist. *Senses* 443a26-7 (B7); tB).


What these could suggest is that it is not just a contingent fact of this world that we gain knowledge through the senses, but that even in a radically different world, one consisting only of smoke, which fiery Hades would at least be close to, we would continue to know something of the world through our senses—we would not be left with an undifferentiable, and thus meaningless, blur (cf. Barnes: 1979, p. 147). The context of (101), however, dampens this interpretation somewhat. Aristotle tells us that “some think that the smoky exhalation is smell, since it is composed of earth and air” (443a23-4; tB), and that this led Heraclitus to say that our noses would distinguish things if they became smoke. That is, Aristotle thought Heraclitus was merely saying that for us to smell something it had to give off “smoky exhalations”, although he put this in a characteristically dramatic way. Aristotle may, of course, have gotten Heraclitus wrong, but his interpretation seems no less plausible than the strong empiricist interpretation.70

69A similar story seems to apply to Plato’s account of the use of visible figures in geometry (510c1-511a9).

70Kahn (1979, pp. 257-8) suggests that (101) and (102) mean that souls, having lost their sight, still have perception in smell of one another, and possibly their surroundings, since as it happens souls, and possibly much of their surroundings, are smoke. That is, Kahn thinks that Heraclitus is only saying that under another particular contingency we still perceive, not that under any contingency we would still perceive since we would perceive even under this most extreme contingency. But these fragments need not even say this much. Heraclitus does not say we retain only the sense of smell; the attribution of Hades as ‘invisible’ (eg.
There is one more piece of evidence we must consider. Heraclitus said that the sun "has the breadth of a human foot" (Stob. Anth. 1.25.1g (B3); tB). Diogenes Laertius presents the obvious interpretation of this:

The sun is the size that it appears (103: 9.7 (A1); tB).

This suggests a very direct form of empiricism. Of course, this passage is logically consistent with a denial of empiricism, but we may ask what would lead one to such a conclusion other than a strong affinity for sticking to empirical data? Well, it is hard to say.\(^{71}\) All the same, this simple equation of the appearance with the reality is at odds with the rest of Heraclitus' philosophy. It seems difficult to reconcile this with (105) and the implication of (97) and (98) that things aren't quite as they appear on face value.

Oddly enough, just after passage (103), we find Diogenes attributing to Heraclitus the claim that:

Sight is fallacious (104: 9.7 (B46)).

This does not contradict empiricism: the proposition 'all knowledge ultimately derives from smell' presents a logically possible empiricist position. However, that an empiricist, especially an ancient Greek empiricist (see ch. 1), would claim that sight was not among the senses from which knowledge was derived seems implausible, if not ludicrous. Hence (104) presents a far stronger case against empiricism than the case we have seen for empiricism. But, all the same, (104) is inconsistent with other Heraclitean fragments - most noticeably (92), but also (91) and probably the following:

Bad witnesses are eyes and ears for people with foreign souls (105: Sext. M 7.126 (B107)).\(^ {72}\)

Presumably, although it does not necessarily follow, eyes and ears are good witnesses for souls with full citizenship. Nor does (104) sit well with the large number of visual examples that Heraclitus gives of his philosophy (we will see some of these later). So if we are to retain (104), we must dismiss a number of better attested fragments; but even if we do this, we are left with a problem in reconciling it with Heraclitus’ apparent use of sight in other

---

\(^{71}\) One possibility is that this is an example of the sort of false conclusion that a person with a barbaros soul would reach due to the bad witness of his eyes (105) (Nussbaum: 1972/1, p. 13; but cf. Kirk: 1945, p. 281, which also lists other possibilities; and see below). If this interpretation is right, then we find some area of agreement between Heraclitus and Xenophanes: this is a correction of a what we see, and we saw (in ch. 3) that similar corrections were made by Xenophanes.

\(^{72}\) Whether εξώτω with is conditional – a person’s senses are dodgy if that person has a foreign soul – or causal – peoples’ senses are dodgy because they have foreign souls – is clearly of paramount importance: the conditional reading constitutes a criticism of some people (possibly everyone except Heraclitus); the causal reading laments a permanent state of all mortals. However, the causal reading is contradicted by (92) (cf. Marcovich: 1967, p. 47).
The obscure wisdom of Heraclitus

fragments. Furthermore, if we take the simpler course and dismiss (104) as an inaccurate rendering of Heraclitus, we do not have to go far to explain why Diogenes attributed (104) to Heraclitus: it may well be a bad condensation of (105) (Barnes: 1979, p. 328 n. 21).73 So, all in all, there seems to be little in favour of retaining (104) as a part of Heraclitus’ philosophy. All the same, I hope I have shown that we are not left with enough evidence to attribute empiricism to Heraclitus.

a speculative note

Heraclitus may have also commented on the physiology of sensation: saying that it “proceeds by opposition” and “involves change” (Theo. Senses 1-2; tr. Robinson: 1968). This may be no more than a specific case of the general thesis that “all things come to be in accord with strife” (77), but it is tempting to think that Heraclitus may have believed that we perceive opposition and change because opposition and change cause perception. We can only speculate as to whether this was so, but if it was, there is an interesting implication. I have argued that Heraclitean epistemology was only concerned with the understanding of metaphysics, or more correctly *Heraclitean* metaphysics; but now it seems that in addition to this epistemology may require a metaphysical explanation or justification. And this does appear to be what is going on in the *Theaetetus* (152a1-154a8) where Plato uses Heraclitean metaphysics to justify or explain Protagorean epistemology. Hence if this speculation turned out to be true, there would be a double dependence of epistemology on metaphysics in Heraclitus.74

THE ORACULAR EYE

I have argued that the senses are probably necessary for wisdom, but not sufficient. So does Heraclitus help us to fill out the remaining condition, or conditions, for wisdom? (105) is another fragment that implies that sensory experience is not sufficient for something, presumably wisdom; but it does also seems to say something about what is required in addition. That something is a soul with full citizenship – a non-*barbaros* soul. But just what is a foreign or *barbaros* soul? Some scholars seem to be a little too free with their translations of *ξώρηται* and *ξώρητος* foreign souls. Burnet (1945) is fairly typical with “souls that understand not their language”. On the other hand, the more literal translation of “foreign souls” could hardly have been meant to be taken literally. In his criticisms of the mass of humanity, Heraclitus surely has the people he encountered in his life, his

73 Such condensations are typical of Diogenes. A good example of this is his treatment of the ten modes of Aenesidemus (9.78-88) in comparison to their treatment by Sextus (Pyrrho. 1.40-163) (these are reproduced in Annas: 1985) – particularly his eighth mode (9.86) (Sextus’ seventh (1.129-34)) (and see ch. 7 note 26).
74 Similarly, Wilcox (1991, pp. 631-3) argues that both the cosmos (Clem. Misc. 5.14.104.2 (B30)) and its regulating ἡ λόγος (Hippo. Ref. 9.10.6 (B64-5)) are literally fiery (see note 112), as is the human ὁ ψυχή (86) (but see note 113); and the wiser the ψυχή (the more it understands the ἡ λόγος) the fierier it is (Stob. Anth. 3.5.8 (B118)); therefore understanding the ἡ λόγος is due to material likeness between the ψυχή and ἡ λόγος.
fellow Ephesians, uppermost in his mind— that is, he did not consider the souls of his fellow Greeks to be less "foreign" than any other peoples (cf. DL 9.2 (B121)). Barnes (1979, pp. 148-9) takes βαρβάρους ψυχός as a metaphor for some intellectual faculty not possessed by all people. This may be all that we can safely get from (105), which is virtually nothing. But we can add that the faculty is more than just thinking, for thinking is common to all (106: Stob. Anth. 3.1.179 (B113); tB).

But, again, does this get us any further? Fortunately, there is some support for reading into βαρβάρους ψυχός an analogy with inability to understand some ‘language’. Firstly, βαρβάροι foreigners were distinguished by their inability to speak or understand Greek, and in Heraclitus’ time it meant only this—there was not yet any pejorative connotation (Nussbaum: 1972/1, pp. 9-10). Secondly, there is the frequent association between comprehension and hearing properly in other fragments such as the following:

The uncomprehending, hearing, are like the deaf: the saying bears witness to them—absent though present (107: Clem. Misc. 5.14.115.3 (B34)).

75Although, on the basis of what I have said about the reasons for Heraclitus’ strong critical stance, we would have to say that this faculty is attainable for all people, even if not in fact attained.

76Unless we accept Kahn’s (1979, p. 119) rendering of this fragment as a statement of panpsychism; or Fritz’s (1974, p. 39; cf. Kirk: 1954, p. 55) suggestion that this fragment means ‘there is only one way each person can have φοβεύω thinking’. Fritz’s suggestion is plausible since the cognate φήν thought is associated with νόος in (95), and there it is claimed that some (probably most) people lack both (and see above note). I am inclined to follow Robinson’s (1987, p. 155) suggestion that φοβεύω “is the nearest word the Greek language had at this time for ‘to be conscious’. The point to the apparently trivial claim that everyone is conscious may be that this is what is required to make understanding possible—giving us essentially the Fritz thesis. But the authenticity of the fragment has been doubted (Marcovich: 1967, pp. 96-7; Kirk: 1954, pp. 55-6).

77This sense of βαρβάρος ψυχός is indeed popular among commentators (eg. Scolnicov: 1983, pp. 10-1; Wiggins: 1982, p. 31; Marcovich: 1967, pp. 47-8; Kirk: 1954, p. 281). Robinson’s (1987, pp. 150-1; 1986, p. 307) preferred version is close to my own position. He suggests that we need to understand the language that both the senses and that which is wise speak to our souls. I would suggest that we need to understand the language that that which is wise speaks to our souls through our senses (see below). A critic of this general position is Wilcox (1991, esp. pp. 631-3). He argues that understanding the λόγος is explained by Heraclitus in the purely metaphysical terms of like knowing/understanding like (see note 74); hence he cashes out βαρβάρος ψυχός εχόντων with foreign souls as “for those whose psuchai are foreign to the logos” (my italics). However, even if we grant this metaphysical account of understanding, I fail to see how it rules out the possibility that such a metaphysical account might require further explanation: what makes one soul more like the λόγος than another; how does this likeness lead to understanding? And such an explanation could be precisely along the lines presented in this chapter. Indeed, the rest of (105) — “bad witnesses are eyes and ears” — suggests that if Wilcox is right, the metaphysical likeness to the λόγος leads to superior perception—but in what does this resultant superior perception consist? Understanding the language of the senses seems to be a perfectly plausible answer to this question.

78Nussbaum (1972/1, p. 12) suggests “...what they say bears witness that although they are present, they are absent” — the point being that they are absent due to their language
Having listened not to me, but to the χόρος, it is wise to agree that all are one (108: Hippo. Ref. 9.9.1 (B50)).

Not knowing how to hear nor to speak (109: Clem. Misc. 2.5.24.5 (B19)).

And there is also the connection of speech with sense and the χόρος (“what is common to all”) in the following:

Speaking with sense one must trust what is common to all (110: DL 9.2 (B114)).


But is this role of language an analogy – just as hearing is not enough to give the meaning of a statement, so seeing is not enough to give the meaning of what is seen – or are we to take the role of language understanding in Heraclitean epistemology more literally? Nussbaum (1972/1, pp. 9-13) argues for the latter alternative. That people have a literal problem with language does seem to be the force of (109). Furthermore, she argues that some fragments can be seen as showing that linguistic misunderstandings can lead to a false cosmology ((117); Clem. Misc. 4.3.10.1 (B23)). And (76) can be read as claiming that people’s failure is in connecting (ἀξιόντες uncomprehending) Heraclitus’ words (ἔπα) into a complete statement (χόρος). But Nussbaum does not restrict the problem of language incompetence to what is heard since language is central to any learning: Heraclitus’ point, she argues, is that “nothing seen or heard can be fully understood without language, since it is in learning language that a human being learns to relate and judge that which he perceives” (p. 13; my italics). I must agree with Lesher (1983/2, pp. 158-9), however, that Nussbaum’s conclusion is too general: whatever it is that most people lack is only required for wisdom, for understanding the χόρος, not learning incompetency. This, however, requires her to dismiss ἀντίόμενον to them as an ethic dative; but according to Betts (1989, p. 205) the ethic dative occurs only in the 1st and 2nd person.

Kirk (1954, p. 70; cf. Marcusovich: 1967, p. 116) suggests that listening to the χόρος results in seeing that “all are one”, rather than this being a formulation of the χόρος itself – the χόρος itself being the structure of the universe that connects all things.

In saying that hearing is not enough for understanding, it is argued, Heraclitus is saying something new – this is in direct contrast, for example, with the physicalistic account of language in Homer (Lesher: 1983/2, pp. 166-9; cf. Nussbaum: 1972/1, pp. 4-5).

And see note 78.

The linguistic error that Nussbaum (1972/1, p. 11) attributes to Hesiod here is due to his naming personified entities ‘Day’ and ‘Night’, which results in false descriptions of these phenomena such as making one, night, older than the other, day (and the idea that day is born out of night is probably only antithetical to Heraclitus in so far as this process is not reversible – night is not, in turn, born out of day) (cf. Robinson: 1987, pp. 120-1; Kirk: 1954, pp. 155-6). But is this false cosmology really due to a linguistic error? Isn’t it rather a certain explanatory model (the deification of natural phenomena) that results in undesirable consequences for Heraclitus? The process of naming seems to be incidental to the identification of two distinct deities with the phenomena day and night. Incidentally, another undesirable consequence for Heraclitus, that is more likely to be what Heraclitus has in mind here, is that deification of such opposites as Night and Day clearly marks these opposites off as individual and distinct entities (Mourelatos: 1973, p. 34; cf. Kahn: 1979, pp. 109-10).
generally (98). So if literal language competency is the missing ingredient for attaining wisdom, Nussbaum fails to show us how it, combined with sensory experience, gives us wisdom.

So the language incompetency seems to be an analogy. But it is a close analogy: there does seem to be a 'speaker' in that some kind of revelation is involved (cf. Hussey: 1972, pp. 38-9). This is suggested by (67) and (68): both fragments imply that a god does communicate with us. This conclusion is also suggested by the attribution of wisdom to god alone (78). Consequently, it would seem that any wisdom people may attain would have to be handed down by god. But (67) and (68) also show that if there is some revelation involved, it is only partial – that is, the message is only 'indicated' by revelation, not explicitly spelt out. This 'indicating' is, I suggest, much like presenting a riddle. There is no suggestion of a second divine revelation that provides an answer to the riddle, nor would such a second revelation make any sense. For the answer to the riddles revealed we mortals are on our own.83 The association between riddles and our inability to comprehend what we meet with everyday is clearest in the following:

People are thoroughly deceived, he said, in regard to recognising what is apparent, much like Homer, who was the wisest of all the Greeks. For some children killing lice deceived him, saying: 'as many as we saw and grasped, this many we leave behind, and as many as we neither saw nor grasped, this many we carry [with us]' (111: Hippo. Ref. 9.9.5 (B56)).85

83Darcus (1978, p. 42) suggests that divine revelations are riddles because the divine is so much beyond people in wisdom (78). I presume this means that if the divine tried to speak plainly, not only would it not be understood, but there would be no sign, or solution, in this plain speech by which the truth can be revealed.

84Rethy (1987, pp. 1-2) points out that ἂρκει catch is the word typically used in the formulation of the riddle in the various Lives of Homer, so Heraclitus' deviation in using the phrase εἶδομεν καὶ ἐκλάδομεν saw and grasped could be significant. Rethy makes a little too much of this point, but it is not implausible that εἶδο and λαμβάνω designate seeing and the interpreting (or grasping the significance of) what is seen, respectively.

85Here it is the φαινόμενον, apparent that people are in error about. Fritz (1974, pp. 39-40) is right that the apparent tension between this and (69) cannot (and, I would add, should not) be entirely removed. But any contradiction can be removed by pointing out that the connections of opposition are still visible, at least sometimes, but this visibility is not enough to make them obvious, at least not to most people (see below): the visibility allows them to be described as apparent, while the unobviousness allows them to be described as unapparent. (All the same, visible, although a possible sense of φαινόμενον, is clearly not an appropriate translation here. Homer was blind (cf. Rethy: 1987, p. 1), but if it was just his blindness that caused him to be deceived about the visible lice, then the criticism of him for not solving the puzzle is perverse. His blindness is required for there to be a puzzle – seeing the lice would be equivalent to being given the answer; but for the criticism to be justified what was φαινόμενον would have to be something that should have been apparent to Homer – ie. to a blind man.) However, it is hard to see what is so apparent in this riddle: I doubt that the answer would be immediately obvious to me was it not already explicitly stated in the fragment. Perhaps Robinson (1987, pp. 119-20) is right in suggesting that it is obvious to the mind of a child, whose thinking (and understanding of language) has not become calcified by ingrained habits of thought like those of their elders.
So there is reason to suppose that understanding the λόγος involves revelation – Heraclitus' god does 'speak' to us – but the revelations are not communicated to mortals directly.\textsuperscript{86} I believe that the riddles, or signs, are revealed in the perceivable world. Indeed these signs are themselves instances of the λόγος, which, as we have seen, pervades all levels of the cosmos, including those things we “meet with throughout the day” (97). That is, although nature loves to hide, “there are places where the workings of the cosmos will peep out” (Wiggins: 1982, p. 28). This is where sensory experience comes in. We see the riddles all around us, every day, in rivers, paths, carding combs etc. The ordinary man, however, fails in attaining wisdom at the very first step – he does not even see that these things present riddles, indications or signs of the λόγος; he cannot even read the riddles, let alone solve them. The intellectual faculty required for wisdom is just that ability which enables one, firstly, to read nature so as to see the riddles as riddles, and, secondly, to find the common solution to the riddles. Just as the λόγος (the recognition of which is the common answer to Heraclitus' riddles) is given in what we meet with every day, the answer to a riddle such as (111) is given in the riddle itself, but, again as is the case with the λόγος, the answer is not immediately obvious.\textsuperscript{87} A soul with full citizenship is one that can find what is already given in this way – in the way that the answer to a riddle is already given.\textsuperscript{88}

Some of the more straightforward examples of such riddles are the following:

The sea ... is most pure and most polluted water: for fish, drinkable and life preserving; for men, undrinkable and death dealing (112: Hippo. Ref. 9.10.5 (B61); tB).

The path of the carding combs\textsuperscript{89} ... is straight and crooked ... it is one and the same (tB) ...

\textsuperscript{86}And if Kahn is right, Heraclitus was critical of at least one kind of direct revelation (see note 9).  
\textsuperscript{87}This point is equivalent to Hussey's (1982, p. 36) "Rule of Intrinsic Meaning" except that he derives the point from analogy with the meaning of statements generally. However, the unapparent nature of what is given is brought into sharper relief by the riddle analogy than the more general language analogy (see below).  
\textsuperscript{88}The import of βαρβάρος ψυχός (105) could, then, relate not just to a general language analogy, but more specifically to the requirement that we recognise riddles as riddles, rather than merely taking what is presented to us on face value. The barbarian Croesus is willing to take oracular utterances on face value (Herodotus 1.53-6) (Hölscher: 1974, p. 230) – principally, the famous oracle that if he attacks the Persians, he will bring down a great empire. Solon, one of the Seven Wise Men, in contrast, understood Croesus' fate (Herodotus 1.86). Could Heraclitus have had this specific contrast in mind? This would imply a contrast between the barbaros soul (of Croesus) and the wise soul (of Solon). But this speculation, unfortunately, goes well beyond the available texts.  
\textsuperscript{89}Or screw-press or letters. It is not entirely clear just what implement or object υποκομβώνει/υποκομβώνο... carding combs (the correct text is a point of dispute) refers to in the ancient world (cf. Kahn: 1979, pp. 190-1; Kirk: 1954, pp. 97-103). However, the philosophical point is no less clear as a result of this.
Method and epistemology in the early Presocratics

The road up, down: one and the same\(^9\) (113: Hippo. Ref. 9.10.3 (B59-60)).

The barley drink separates if it is not moving (114: Theo. Vert. 9 (B125); tB).

Upon those who step into the same rivers different and different waters flow (115: Eus. Prep. 15.20.2 (B12)).

The first two passages indicate the harmony of opposites: opposites can be of the same thing at the same time, indeed at all times – sea water is both pure and polluted; carding combs move in a straight line but turn, or spin, as they do; the road to Ephesus is also the road out of Ephesus. The last two fragments indicate the necessity of change for things to be as they are. By seeing these aspects of the world, a soul with full citizenship would then see “that war is common, justice strife, and all things come to be in accord with strife and necessity” (77).\(^9\)

That at least one of these particular occurrences of the λόγος (115) applies to the universe as a whole is claimed in the following:

\(^9\)Heraclitus’ use of the phrase ἐὰν καὶ ὁ ἀυτός; one and the same should not be confused with his use of just ἐὰν one. ἐὰν is often used to denote the interconnection of things into a unified whole as opposed to the simple identification of those things ((71), (108) and (117)). ἐὰν καὶ ὁ ἀυτός; is, however, used simply as identification: the road to Ephesus is the same road as the road from Ephesus; there is only one path of the carding comb even though this can be described as straight in one respect and crooked in another. So Hippolytus is mistaken in construing (117) as saying that night and day are ἐὰν and the same” (Ref. 9.10.2). Furthermore, ὁ ἀυτός; alone is also used by Heraclitus as identification (cf. esp. (115); Ps-Plut. Apoll. 106e (B88); Clem. Prot. 2.34.5 (B15)).

\(^9\)MacKenzie (1988, pp. 1-5) suggests that Heraclitus might have attempted to help his reader work through the riddles he proposes. For example, she suggests that all three river fragments are indeed authentic and they constitute a dialectical argument that gets us from the paradox or puzzle to its resolution: we cannot step into the same river twice [because each time there are different waters] (Plut. E 392b (B91)); but surely we can step into the same river twice (it can be clearly distinguished as the same river by its banks); but now we seem to have equal reason to say that we can and that we can’t step into the same river (Her. Hom. 24.4 (B49a)); this is resolved by noting that we do step into the same river [as determined by its banks], but each time we step into different waters (115). Similar initial paradoxes ((113); (114); Hippo. Ref. 9.10.5 (B62); Por. Hom. 4.4 (B103)) and similar resolutions (ETY. Mag. sv bios (B48); Arist. N. Ethics 1176a3-8 (B9); Ps-Plut. Apoll. 106e (B88)) are found throughout the fragments (cf. George: 1993, pp. 8-9). The paradoxes principally assert the unity of opposites thesis, but the resolutions assert the ‘opposition of unity thesis’ – the unity of opposites consists of qualified opposites. So Heraclitus wishes to emphasise both unity and difference (MacKenzie, pp. 6-12). Having said this, MacKenzie’s next move seems unnecessary. She claims that this dual thesis of the unity of opposites and the opposition of unity was used by Heraclitus to argue for the law of non-contradiction (the opposition of unity thesis showing how this law is salvaged from the unqualified unity of opposites thesis) and the idea that individuals are not mere bundles of properties but stable substrates of properties (the examples of static and concrete unities of opposites “rest upon a contrast between the one subject and the many predicates” (p. 15)) (pp. 12-7). The reason for attributing these last two concerns to Heraclitus is that she believes that Heraclitus must have said something philosophically interesting but not absurd (pp. 6-7); but this is exactly what results from the combined theses of the unity of opposites and the opposition of unity – the unity of opposites is philosophically interesting and the opposition of unity saves it from the absurd result of universal indeterminacy.
All things come about through opposition, and the universe flows like a river (116: DL 9.8 (A1); tB).

Kahn (1979, pp. 171, 175) argues that by γνώσκω recognise Heraclitus means ‘recognition of the λόγος’, hence it, or its noun equivalent γνώσις, signifies just that riddle-solving faculty required for one’s soul to gain full citizenship, and thereby, with the aid of the senses, wisdom. This role of γνώσκω perceive, recognise is clearest in (98) and the following:

A teacher of most, Hesiod: they know well that he knew most, who did not recognise day and night: for they are one (117: Hippo. Ref. 9.10.2 (B57)).

It is also worth noting the presence of its cognates in (75) and (111). Lesher (1983/2, p. 160) prefers καταλαβεῖν comprehending as designating this special faculty. The significance of this term is that it draws attention to the popular misconception of what it is to understand both what is heard and what is said. The verbal equivalent of ξύνεσις, ξυνήμα, was generally used to mean coming or bringing together, but had acquired also the senses of perceiving and understanding what is said. The implication is that perceiving and understanding what is said are the result of nothing more than coming into contact with what is perceived or said. In using ἀκόντες uncomprehending in contexts which explicitly deny this thesis ((76) and (107)), Heraclitus is hammering home this error (pp. 163-6). But there is no reason to assume that only one of these terms was used to designate the missing ingredient for wisdom. My own inclination is that both of these terms do indeed refer to this missing ingredient: Heraclitus used both because the different connotations of the two terms combined suggest a fuller picture of the faculty in question.

---

92 And in note 32.
93 In some occurrences of γνώσκω, and many occurrences of νόεω, in Homer the recognition has a suddenness (Lesher: 1981, p. 10; Fritz: 1943, pp. 84-5) that seems to be reflected in the terseness of many Heraclitean fragments. Could the terseness be because Heraclitus thought it was necessary to snap his reader into recognition?
94 Or ability or mental state. It is not clear whether Lesher wants to call this true ξύνεσις a faculty that people lack or a state they are unable to attain, but then it is quite probable that Heraclitus was unaware of, or unconcerned with, such distinctions. ξύνεσις is not actually used by Heraclitus in any extant fragment, but it is the positive counterpart to ἀκόντες uncomprehending ((76) and (107)).
95 Lesher also seems to want to imbue ξυνήμα in Heraclitus with the positive implication that understanding involves perceiving connectedness (between the many things seen and heard) (pp. 167-8), as opposed to the above negative implication that contact (with what is seen or heard) is not enough for understanding.
96 νόεω may also refer to this faculty, but I am more inclined to take it as a synonym for σοφή for the following reasons. Firstly, essentially the same point is made about νόεω in (89) as is made about σοφή in (88) (even though σοφή is being used ironically here). Secondly, γνώσις/ξύνεσις is the means by which σοφή is achieved; and it is more likely that Heraclitus would only recommend that we speak once wisdom is achieved, not when we merely exhibit the means of achieving it; so “speaking with νόεω” in (110) most likely means ‘speaking with wisdom’. Thirdly, it is possible that Heraclitus thought that the faculty of γνώσις/ξύνεσις could be taught, but it is more likely that the product of this faculty is what is taught; so
I mentioned earlier that these signs that help us to penetrate the hidden nature are predominantly visual. The dual motion of the carding comb is something we would see, as is the barley drink holding together as it moves. It is seeing a path, not feeling or tasting it, that brings home the point that it is both the path to our destination and back from it. However, although the constant change inherent in the flow of a river is apparent to sight, it is more apparent to touch, by standing in the river, so sight need not be exclusively the sense used for these signs or riddles. However, none of these riddles are of something heard.97

This talk of ‘riddles of the senses’ is as much an analogy for how a non-barbaros soul perceives correctly as is a ‘language of the senses’. But this riddle analogy augments the language analogy. The latter gives us little more than that some kind of interpretation is required for wisdom. The riddle analogy gives us this and more. Firstly, not only can a statement have more than one meaning, it can have more than one correct meaning, contra Hussey (1982, p. 39). The only requirement for correctness of a statement is the intended meaning of the speaker, but a speaker can intend a double meaning, and there is no better example of this than Heraclitus.98 A riddle, however, although it too can rely on a double meaning, still only has one correct solution. Secondly, riddles, unlike other statements, contain definite clues to their solution.99 At the risk of pushing the riddle analogy too far,
the above fragments (112) – (115) might best be seen as clues rather than the riddles themselves, the riddles are the observed objects that the fragments describe – actual carding combs, rivers etc. An advantage of this interpretation is that it gives a positive role now to hearing, which (92) seems to require.\(^{100}\) Hearing is the source of appropriate descriptions – an appropriate description being the one that best brings out the clue(s) – of significant observations viz riddles. And this is why none of the riddles are of something heard – we see the riddle, we hear the clue.\(^{101}\)

As I have already suggested, Heraclitus probably believed that he was the only person able to solve these riddles. In doing this he may have conceived of himself as akin to the Homeric seer in that he was able to see beyond what the common run of humanity could see; although this required no second sight (see ch. 1), just a more perceptive version of ordinary sight.\(^{102}\) This theme of the self-appointed seer is not restricted to Heraclitus. Parmenides too believed he could see (although figuratively in his case) beyond what the common run of humanity could see (see ch. 6). And, although these are the only early Presocratics we can attribute this

---

\(^{100}\) And see note 97.

\(^{101}\) If the riddle analogy does indeed give us all we get from a more general language analogy and more, then the general language analogy would seem redundant. And a plausible case can be argued that Heraclitus did only use the riddle analogy. Firstly, it is prima facie implausible that he would think people were unable to comprehend all forms of language – eg. 'there is a chair in there' – and riddling speech is the only form of language he explicitly refers to. Secondly, against the fact that he does make non-specific complaints about hearing but not comprehending, these could easily have been motivated by specific cases of people hearing but not comprehending – ie. people hearing but not comprehending him; and he does speak paradoxically and in riddles, hence hearing but not comprehending him = hearing but not comprehending paradoxes and riddles.

\(^{102}\) However, Cornford (1952, pp. 116, 150) argues that Heraclitus did believe that he had the gift of second sight. Cornford associates his claim to inquire into himself (118) with that of the minstrel Phemios: "I am self-taught; a god has planted in my heart all the modes of song" (Od. 22.347; tr. Cornford: 1952) (p. 116) – an association for which there is simply no evidence. He further attributes the principle that "our intelligence is a proportion of the divine intelligence" to Heraclitus, and asserts that "we have here the philosophic counterpart of the poet's claim to be inspired by the Muses, and the seer's claim to be possessed by Apollo" (p. 150). If Heraclitus did believe this principle that a person's intelligence is part of the divine intelligence, it is a reasonable inference that he would have thought himself able to tap into this divine intelligence, which is indeed essence the same thing as receiving divine revelation. (The connection to the divine is, however, radically different to the alleged gift of second sight. Hence Vlastos (1970, p. 49), for example, is quite right that Heraclitus could not have believed that "his spirit could wander throughout the universe to gather wisdom inaccessible to the senses and reasoning-powers of embodied spirits". But if we ask whether this principle would lead Heraclitus to believe he could gain access to divine knowledge in some way, then presumably the answer is 'yes'.) But did Heraclitus believe this principle? Presumably, Cornford thought that the λόγος was this intelligence and our sharing in it is what is meant by saying that the λόγος is common to all (99). But I have tried to show that the claim that the λόγος is common to all means something quite different (see above). So, all in all, I find the claim that Heraclitus thought he had the gift of second sight implausible.
tendency to with certainty, the boldness of Milesian science may have also been due to a similar conception.

We can now return to Heraclitus’ negative epistemology. His disdain for testimony about things not seen for oneself is, at least in part, because, if the testimony is not simply irrelevant to wisdom, it is at best a clue (a description) without a riddle (the observed object so described). And we can see that testimony is not the only element of πολυμαθή ι or ἰστορήν inquiry that Heraclitus would dislike. In so far a πολυμαθή requires extensive travel it is at best a waste of time, but ultimately a distraction from solving the riddles we meet with every day without leaving town. We should note here that ἰστορ κνω in (90) is not simply the adjectival equivalent of ἰστορή in (88). Their similarity has led some scholars to take (90) to denote that inquiry is necessary while (88) (and (89)) tell us it is not sufficient. But while ἰστορή might denote the kind of fact amassing inquiry that requires one to be well travelled, πολλῶν ἰστορας knowing or being acquainted with many things may refer to the many things around us in our everyday lives that the λόγος “peeps through”.

Another loose end can also be tied up at this point. The reason we dig over much earth in seeking the λόγος (65), even though it is part of our everyday experience, is simply because we are looking in the wrong place. We could dig over much earth even if we were surrounded by a rich vein of gold, if we are digging in the wrong place: the gold is there and plenty of it, it is just not where we expect it to be (66).103

It is worth noting at this point that I have taken the references to the oracular style of utterance ((67) and (68)) as commenting on the way nature both hides and reveals itself – specifically, in the way the λόγος reveals itself in sensory perception. But these fragments are often seen as commenting on Heraclitus’ own writing style: oracular utterances have the form of riddles, both in the use of paradox and simile (where a surface meaning is intended to be the ‘clue’ to the solution – the hidden meaning); and both of these features are represented in Heraclitus (simile (65); paradox (113), and (115) is possibly the solution to a paradox, (112) both the paradox and solution)104 (Hölscher: 1974, pp. 229-31; Kahn: 1964, p. 193; cf. Darcus: 1978, pp. 40-1).105

Now, there is no reason to take these fragments as commenting on one of these points to the exclusion of the other, especially when they can be seen

103 οπορος scarce in (66) would then cash out as ‘scarce for only those looking for the expected’, just as the gold, the unexpected, is only unsought by such people.

104 See note 91.

105 If Heraclitus’ references to oracular utterances were meant to do no more than to suggest the role of some form of interpretation – ie. if they contained nothing more than I have argued is contained in the analogy with language in general – then we might expect Heraclitus to refer to the interpretations of omens too since these would serve just as well as examples of this point (but, of course, it may be that he did refer to the interpretations of omens, but that these references are lost). However, it is claimed that omens were considered to be statements in a language accessible only to the specialist seer, whereas “oracles were riddling statements in a language known and accessible to all” (Humphreys: 1978, p. 237) – ie. oracles speak a common language, omens don’t. However, the specialist prerogative of omen interpretation seems to have begun to die out even as early as Homer (see ch. 1). (That omens were ever taken to be direct statements in the specialist language of the seer, as Humphreys claims, I find highly implausible.)
as connected. The connection being either that an oracular style of writing is required to communicate how things are, given the way nature reveals itself to our perception (Hussey: 1982, p. 56; Hölscher: 1974, pp. 231-4); or the writing style may be directed more at awakening the riddle-solving skill in us than at simply describing nature (cf. Kahn: 1979, pp. 123-4).\footnote{Although this later possibility would require us to take Heraclitus' introductory comments to his book (76) – “as I ... say how [each thing] is” – with a pinch of salt.} \footnote{The preceding account of Heraclitus' epistemology should be sufficient to show that there is no inconsistency in it. Indeed, this point has been long established. But the accusation of inconsistency is, inexplicably, not dead (Wilcox: 1993, pp. 1-2, 12-3). An assertion such as “if sensation is a reliable way to gain knowledge of the logos, then the logos cannot be hidden, and if the logos is hidden, then sensation cannot be a reliable way to attain knowledge of it” (p. 1) is not merely groundless, its denial simply is one of the more obvious features of Heraclitus' epistemological fragments. Wilcox distinguishes two concepts of knowledge: (i) knowledge is achieved by sense-perception, which is not seen as distinct from thought; (ii) knowledge is achieved by mental 'perception', which is seen as distinct from sense-perception (pp. 10-1). He then argues that since Heraclitus fits neither of these conceptions his conception is a confusion between the two (pp. 12-3). But Heraclitus can still be viewed as representing a conception between (i) and (ii) without embroiling him in contradiction or condemning him to confusion – ie. (iii) knowledge (or rather understanding the λόγος) is achieved by sense-perception in combination with mental perception, these being seen as distinct but connected.}

\section*{The oracular I}

I searched myself (118: Plut. Col. 1118c (B101)).\footnote{Another plausible translation is ‘I inquired for myself’ as opposed to relying on other people’s testimony – ie. I “was no-one’s pupil” (121) (Robinson: 1987, p. 147).}

Both Kahn (1979, pp. 14, 128-30) and Guthrie (1962, pp. 418-9) suggest that this self-searching may lead to the λόγος within; and thereby the true nature of all things, since the λόγος is the same for all things ((76) and (97)). The soul did have a λόγος:

The λόγος of the soul increases itself (119: Stob. Anth. 3.1.180 (B115)).\footnote{The authenticity of this fragment has been doubted, not the least reason being that Stobaeus actually attributes it to Socrates (cf. Robinson: 1987, pp. 156-7; Marcovich: 1967, p. 569).}

You would not find the limits of soul, if you travelled every road: so deep a λόγος it has (120: DL 9.7 (B45)).\footnote{An allusion to a voyage across the “deep” ocean to the “limits” of the world (cf. esp. Od. 11.13) (Robb: 1986, pp. 335-6) seems to me quite plausible. But this only enriches the literary power of the fragment, it doesn’t affect my philosophical conclusion (although it would affect some – it makes even less plausible the interpretation that for Heraclitus there are no limits to the soul, as Kahn assumes (see below; but cf. Kahn: 1979, p. 128)).}

Now, it is reasonable to suppose that self-searching will give us an understanding of our souls. So if our souls have a λόγος, it is quite feasible that we could discover this feature of our souls by introspection (cf. Robb: 1986, p. 339). But via a longer chain of reasoning we can come to this same
Method and epistemology in the early Presocratics

Kahn (1979, pp. 12, 128) interprets (120) as saying that the soul is limitless. Typically, it is the ἀρχή that is considered to be limitless in Ionian cosmology. Hence (120) equates the soul with Heraclitus’ ἄρχη, fire (cf. esp. Clem. Misc. 5.14.104.1 (B30)).  

So, if this is right, self-searching will give us insight into the cosmic fire; hence, in so far as fire is the physical manifestation of the λόγος, insight into the λόγος. Kahn also argues that (108) immediately follows (120), thus making the λόγος that we should listen to in (108) the deep λόγος of our souls – that is, it is the λόγος of our souls that forces us “to agree that all are one”.

So there does seem to be a plausible case for believing that self-searching leads to wisdom. Now, this self-searching is presumably a process of introspection; and introspection does not require information from the senses. So if Guthrie is right, this would contradict the necessity of sensory experience for wisdom – that is, we seem to have two alternative routes to wisdom; I could get wisdom via introspection, thus bypassing the senses, or vice versa. In fact Guthrie goes even further than this. He thinks self-knowledge was the only route to metaphysical understanding for Heraclitus. And he seems to have an ancient supporter in Diogenes Laertius:

He was no-one’s pupil, but said that he had inquired into himself and learned everything from himself (121: 9.5 (A1); tB; my italics).

But not all the ancients agree:

111 This makes it a world soul, not my soul or yours, that is limitless.

112 In so far as the λόγος involves strife (see above), it is linked to fire by conjoining the claim that ‘justice is strife’ (77), with the representation of fire as the agent of justice: “fire will come and judge and convict all things” (Hippo, Ref. 9.10.7 (B66)). That is, λόγος involves strife; strife = justice; .: λόγος involves justice; justice involves fire; .: λόγος involves fire. Further evidence that fire is the physical manifestation of the λόγος is found in Hippolytus: “The thunderbolt steers all things” (Ref. 9.10.6 (B64)) – the thunderbolt represents fire, hence fire “steers all things”, as does the λόγος (97) – and in Plutarch: “All things ... are an exchange for fire and fire for all things” (E 388de (B90)) – making fire the principle agent of change which I have argued is a central role of the λόγος.

113 This argument is largely appropriated from Kahn (1979, pp. 128-30), but he would dispute one of its essential steps. He denies that the soul is fire (1979, pp. 128, 239; 1964, pp. 198-9), insisting that for Heraclitus soul was mist in line with ancient commentators (Arist. Soul 405a25 (A15); Eus. Prep. 15.20.2 (B12)). However, it is also said that for Heraclitus “the soul is a spark of the essential substance of the stars” (Macro. Scipio. 14.19 (A15); tr. Kirk: 1983). Against this, Kahn argues that the aither (the substance of the stars) is a kind of mist (p. 250); yet I am unconvinced by this move. However, this move is hardly necessary since Kahn’s argument is compelling in its simplicity: soul is said to be capable of being moist or dry (Stob. Anth. 3.5.7-8 (B117-8); Por. Nymphs 10 (B77)); αἰρ air or mist can be moist or dry, but fire cannot be moist; hence, soul cannot be fire but could well be αἰρ. The reason usually given for identifying soul with fire is that in (86) soul seems to take the place of fire in (73). Now, soul does not necessarily take the place of fire unless Heraclitus did hold that there were only the three elements mentioned in (73). However, Kahn argues, (73) itself is the sole support for attributing a three element theory to Heraclitus, yet there is no reason to suppose that he is giving a complete theory of elemental transformation here. We could go further and say that if soul is mist, then there probably was a fourth element for Heraclitus (and it was αἰρ that constituted the fourth element in earlier cosmologies) since it is unlikely that soul would be identified with some compound of elements, especially given its use in (86).
He was the pupil of no philosopher, but was taught by nature and by diligence (122: Suda (A1a)).

But the claim that Heraclitus thought that only self-searching led to wisdom seems to rely on the argument that (i) Heraclitus was critical of ἰστοριᾶ as a method, and that (ii) ἰστοριᾶ involves "studying external nature" (p. 417). But ἰστοριᾶ is just one way to study external nature, so a criticism of ἰστοριᾶ does not entail denouncing the information of the senses, which would, of course, contradict (91) and (92). That self-searching was one route to wisdom, however, seems plausible if I am right in saying that Heraclitus' epistemological concerns were limited to wisdom. If self-searching wasn't a path to understanding the λόγος, why did it matter to Heraclitus?

But could this self-searching be introspective, after all Heraclitus is unambiguously critical of a private view ((99) and (100))? But the criticism may be of the private view taken in isolation from the public view. What is essential to the common view is the interconnectedness of things, and the point of the sleeper analogy (100) is to show that this private view is erroneous because of its discontinuity with the common (Scolnicov: 1983, pp. 7-8). Heraclitus is here seen as reacting against the lyric poets: he "carries over to the physical world the tensions and contradictions that the lyricists had discovered within the self", but in doing this they had "severed off the 'inner' from the 'outer', as if the 'inner' reality were indeed fundamentally different from the 'outer'" (p. 9). Hence he should not be seen, in advocating the common, as advocating inter-subjectivity, but rather trans-subjectivity - the λόγος is common to all things and all souls alike (pp. 12-3). Following from this, Scolnicov suggests that (119) and (120) should be read as paralleling Heraclitus' criticism of πολύμαθης: just as you will not find the limits of the soul if you account for it by amassing descriptions of subjective experience (as the lyric poets did), you will not reach an end of inquiry if that inquiry is nothing more than an amassing of facts (p. 10; cf. Marcovich: 1967, p. 368). This eliminates two problems at once. Firstly, it demonstrates how Heraclitus could have been critical of a private view but still advocate the inward looking route of self-searching. Secondly, it shows how self-searching can be involved in the quest for wisdom without implying two alternative routes to wisdom: rather self-searching and sensory experience are two parts of the same route to wisdom.

Hussey (1982, pp. 39-41) argues that this introspection gives us precisely the language we need to interpret the senses. He seems to take it as following necessarily from the language analogy that any meaningful message of sense-experience “must be expressed in some language which we can know independently of sense-experience” - specifically, since “the only realm to which we have direct access without sense-perception is the inner

114MacKenzie (1988, pp. 23-5) claims that the private view is required to give us the knowledge of difference - the opposition of unity thesis. But I simply find no evidence of this claim in Heraclitus or in MacKenzie.

115And so ἱβίνθια retains its original sense of "bringing things together" - that is, bringing together the private and public views (p. 8).

116And this could be another reason for Heraclitus' criticism of Archilochus (see above).
realm of our selves revealed by introspection” (p. 40), sense-experience must be interpreted via this. What introspection reveals is a mass of incompatible needs, desires etc. in the unified self (pp. 45-6). But Hussey’s position pushes the language analogy further than the fragments suggest it should be pushed. There is nothing in the fragments to suggest that there must be some actual language of the senses, some code-breaker – the point of the analogy is just to say that the senses need to be interpreted. Furthermore, his claim that what introspection reveals is a multiplicity within a unity (the self) means that introspection reveals just that which the senses reveal, no more, no less. So it seems that introspection is as much a source of riddles to be solved as the information of the senses. Indeed, if we accept the trans-subjectivity of the λόγος, the information from both of these is necessary to fully understand this common λόγος.117

There is some suggestion that the inner view also needs to be interpreted by some riddle-solving ability since δίζημαι I searched (118) has been associated with such riddle-solving: it has the sense of “probing [something] to get beneath the surface and discover the underlying truth” in Herodotus (7.142) (Guthrie: 1962, p. 418), in reference to a message from the Delphic Oracle. If this is the sense of “I searched” for Heraclitus – that is, the search involved a ‘riddle-solving’ process at least in part – then the fragments about oracular utterances ((67) and (68)) may refer to the nature of this self-searching as much as to the way the λόγος reveals itself to the senses and to Heraclitus’ own writing style (cf. Darcus: 1978, pp. 41-2).

CONCLUSION

I have argued that Heraclitus was concerned not with knowledge but with wisdom, and that for him wisdom is understanding the λόγος. This λόγος is the opposition that constitutes the fundamental structure of the cosmos. This opposition occurs at all levels of the cosmos from the elemental to that of human life. It is this, then, that constitutes the basic framework against which we must live our lives, so to understand it is of the first import. The λόγος also penetrates into the things of everyday experience, and therefore is encountered wherever we might turn, both in ourselves and all that surrounds us. But, although the λόγος is given in experience, it is given in an unapparent way, much like the way an answer can be given in a riddle. And to solve the cosmic riddle a special mental faculty is required – a non-barbaros soul, or the capacity of γνώσις recognition. Most people, probably everyone except Heraclitus, are without this capacity. Certainly, those to whom the Greeks attributed most wisdom were without it, hence their testimony could not be trusted, and consequently no testimony should be taken solely on authority.

117 And this further suggests that Heraclitus did not prefer the senses over all other ways of learning in (92) (see above).
Heraclitus' epistemological concerns were different from those of his predecessors: Xenophanes, at least, was concerned with what we can know; Heraclitus was concerned with wisdom. This, however, does not mean that his epistemology was unrelated to what came before him. Indeed some important features of his epistemology relate back to Homer. He resurrects divine revelation, which was eschewed by the Milesians and Xenophanes; but he adapts it to his own purposes. The type of revelation in the *Iliad* closest to Heraclitus' conception is revelation by signs, in that some interpretation is required (although for Heraclitus the 'signs' are actually *instances* of what is signified). A correct interpretation is only achieved by some special, seer-like person. But it is not a special relationship with the divine that allows this seer-like person to interpret the signs: it is a kind of perceptive seeing. This perceptive seeing is also found in the *Iliad*: most significantly when someone *recognised* a god through his disguise. And with Heraclitus this perceptive seeing is also essentially the recognition of god, since Heraclitus' god can be identified with what is revealed – the principle of opposition. But one key element of Heraclitean epistemology does not seem to have any basis in anything that precedes him – that is, the use of self-searching as a source of metaphysical truth.\(^{118}\)

The resurrection of Homeric themes could have been a reaction to Xenophanes' assessment of the limitations of the empirical methods developed by the first philosophers. Heraclitus may not have been willing to accept these limitations, so he cast about for a better method: one that did not require us to move beyond direct experience, but to dig deeper into it. However, it is important to remember that Heraclitus and Xenophanes had different *objectives*. Heraclitus was concerned with certain metaphysical truths that have a bearing on how we should live, the λόγος, whereas Xenophanes was concerned principally with scientific matters. Although there is some overlap between scientific matters and the λόγος, they are not identical. So it may be that Heraclitus' criticisms of much learning and testimony are directed at this difference in the *object* of concern: the kind of facts that were amassed through travel and testimony were just not relevant to wisdom, no matter how useful they were in the justification of scientific theories.

Parmenides too may have reacted against the πολυμορφή of the first philosophers. But unlike Heraclitus he seems to have rejected empirical observation altogether. All the same, like Heraclitus, this rejection may not apply to scientific inquiry in its entirety, but to Parmenides' particular concerns.

---

\(^{118}\)Thales is credited with the expression "know yourself" (*DL* 1.40 (11A1)), but the purpose of this self-knowledge is unclear: there is no reason to suppose that Thales thought self-knowledge led to metaphysical or scientific understanding.
Chapter 5

PARMENIDES I:
AS WE WIND ON DOWN THE ROAD

The Eleatics will be the subject of the next three chapters. In this chapter I will examine the critical parts of Parmenides' poem, where he elaborates the path of the ignorant – namely, the third road and the Way of Opinion. In the next chapter I will examine the positive parts of Parmenides' poem, where he elaborates his metaphysics – namely, the first and second road and the Way of Truth. In the final chapter I will examine the philosophies of the remaining Eleatics, Melissus and Zeno. It is in his critical passages that Parmenides makes his only explicitly epistemological statements. In the third road he makes an explicit appeal to reason, and is also explicitly critical of the senses. But, on careful examination of the relevant fragments, it is not clear from the third road by itself that the appeal to reason constitutes even a weak form of rationalism, or that the criticism of the senses constitutes even a weak form of scepticism about the senses; indeed we are left with more questions than answers. What we can extract from Parmenides' elaboration of this road is that ignorance is essentially due to the absence of reason: reason is necessary for knowledge; without it we are helpless. But ignorance is not just a negative state: without reason as a guide mortals are carried along by certain (unspecified) empirical habits. These habits result in an aimless wandering of the mind and the eye that either constitutes or produces ignorance. Hence the opinions of the ignorant are not just incorrect, but confused, muddled.

What the third road does not tell us is who Parmenides is criticising, who the ignorant mortals are; just what they are ignorant of; and what empirical habits lead them astray (is it sensory information in general or some particular feature of empirical experience?). But I argue that the third road is a preliminary discourse on the Way of Opinion. If this is right, these questions can be answered. The ignorant are ignorant of scientific matters – the unseen origins and explanations of empirical phenomena. All mortals are ignorant of these matters, but it is Parmenides' philosophical predecessors who developed false scientific theories. They did so because they habitually transferred the change found in empirical experience to the basic principles of their cosmologies. Because of this all scientific theories prior to Parmenides are false; and the purpose of the Way of Opinion is to draw out this error. However, there is reason to think that, in the absence of this error, it would be possible to construct a correct cosmology; this means that the empirical phenomena explained by cosmologies are not themselves
Method and epistemology in the early Presocratics

dismissed as false. And, although change is a basic feature of nearly all empirical experience, it is not all there is to empirical experience: that is, it is still possible that the senses could play some role in constructing this correct cosmology. This means that Parmenides was not a radical sceptic about the senses: he did not denounce all sensory information as false. To determine any more than this we must know how much reason is involved in the construction of a correct cosmology, and how much the sense are involved, if they are involved at all.

There is one part of the Way of Opinion that deserves particular attention. This essentially spells out a theory of mind: that each thought is caused by a particular physical mixture of the two basic forms – light and night – within the individual. But there is some reason to think that implicit in this is a theory of perception: that the external light and night determines (to some extent) the light and night in the individual, thus determining our thoughts. Being in the Way of Opinion, however, these theories cannot be strictly true. But it is easy to extract a message from the false theory of perception that fits well with the import of the third road and the Way of Opinion. In formulating their cosmologies, Parmenides’ philosophical predecessors behave as if this theory of perception were true: allowing direct experience to determine all their thoughts, including those on cosmology.

SOME DEFINITIONS

For the purpose of the next three chapters it is necessary to be clear about my use of the terms ‘rationalism’ and ‘scepticism’. Rationalism is, of course, a vague term, but I take its central tenet to be that knowledge can be attained by reason alone – that is, since reason and the senses appear to exhaust the possible sources of knowledge, knowledge can be attained without the aid of the senses. I don’t think a philosopher need believe that all truths can be known by reason alone to be accurately labelled a rationalist; but he must at least claim that some substantial truths can be (certainly more than analytic truths and logical tautologies). I have already argued that Anaximander and Xenophanes, at least, were rationalists in this weak sense. For the purposes of elucidating the epistemology of the Eleatics this weak form of rationalism can be defined as the belief that

(r) some truths about reality can be known by reason alone.

However, it is possible that Parmenides, Melissus and/or Zeno took a more extreme rationalist position, specifically

(R) all truths about reality can be known by reason alone.

Now, neither (r) nor (R) imply anything about the veracity of the senses. Even the strong rationalism of (R) is logically compatible with the

1 ‘Reason’ should be taken to refer to rational or intellectual faculties in general here. I do not wish to limit rationalism to ratiocinative deduction, but to also include, in particular, more intuitive mental perception (see ch. 6).
proposition that all knowledge can be attained by the senses alone. That is, it is possible that all truths could be known by either of two distinct paths, the purely rational and the purely empirical (or various combinations of the two). However, it is common for rationalists to show some scepticism about the senses, and the Eleatics do seem to fit this description. But, again, if they do express scepticism, this could be in either a weak or a strong form: claiming either that

(s) in some (specified) subject(s) no knowledge can be attained by the senses;

or, as many ancient commentators claimed (eg. Aetius 4.9.1 (28A49); Ps-Plut. Misc. 5 (A22)), that

(S) no knowledge can be attained by the senses, the senses only mislead.

So do (r) and (s), or (R) and (S), or neither combination, accurately characterise Parmenidean, Melissean or Zenonian epistemology? This question will guide our inquiry in the next three chapters; however, it must be noted that an answer to this does not provide a complete description of Eleatic epistemology – but a full picture will emerge as we pursue this question.

**AIMLESS EYE AND RINGING EAR AND TONGUE**

Parmenides’ most clearly epistemological passage is the following:

For never will this be subdued, the things which are not are: but restrain your mind from this road of inquiry, and do not let much experienced habit force you along this road, guiding an aimless eye and ringing ear

2Strictly speaking we should perhaps say ‘no knowledge of physical reality can be attained by the senses’ since this is probably the extent of Parmenides’ concerns. But the idea that Parmenides might have thought that the senses were misleading about physical reality, but perfectly accurate and informative about, say, mathematics or the nature of the gods, although logically possible, is clearly implausible if not absurd.

3There is an apparent problem with translating οὐκ ἀνακαταβαίνειν as be subdued: line 1 then means that the wrong path (the path of εἶναι μὴ ἔόντα the things which are not are) will never be subdued. The usual way of dealing with this is to give some unprecedented meaning (for the passive) here, such as be proved, prevail (Barnes: 1987; 1979), or be forced (Taran: 1965, pp. 73-4). This does not appear necessary to me: if we take this fragment as an attack on the majority of humanity (see below), line 1 could be read as saying that the wrong way will always be the way of the majority, then in line 2 Parmenides is told that he, however, must resist what can never be subdued by the majority of people. This interpretation is suggested by the Sophist (237a4-9). Plato only quotes lines 1-2. The point being supported by this quotation is Parmenides’ lifelong resistance to εἶναι μὴ ἔόντα. The resistance is stated in line 2, but that it was a lifelong resistance is suggested by my interpretation of line 1. Furthermore, the alternatives to be subdued do not fit well with the following line. If the point of line 1 is that the road of εἶναι μὴ ἔόντα will not have any power over Parmenides, the injunction to restrain himself from it is rather otiose. But even if we take line 1 to mean something like ‘never ought this road prevail (at least over Parmenides)’, then we would expect a result clause to follow – eg. ‘therefore restrain your mind ...’ – not a clause introduced by ἀλλὰ but.
and tongue; but judge by reason the much contesting refutation contained in what I have said. Only one story of a road is left (123; Plato, Sophist 237a8-9 + Sext. M 7.3 (28B7)).

In (123.5b-6a) there is an explicit appeal to reason; and the fragment clearly contains some kind of criticism of the senses. But just what do these amount to? Barnes (1979, pp. 297-8) is correct, I believe, in pointing out that (123) by itself cannot be taken as constituting a general attack on the senses. But he goes further than this: claiming that it "has very little to do with scepticism" (p. 298), and is essentially just an appeal to the reader to match Parmenides' reasoning with reason, as opposed to the information of the senses. That is, according to Barnes, Parmenides is only saying that if we do not accept his conclusions, we should point out where we think his reasoning goes wrong. This appeal is certainly there; but is it made simply because Parmenides thought this is how philosophy should be done – proceeding by argument and counter-argument – or is it because he believed that reason would lead to the truth, and perception away from it?

Let us begin by examining what is meant by "ringing ear and tongue". \(\gamma\lambda\omicron\omicron\sigma\alpha\) tongue can be used to refer to the tongue as the organ of taste or as

---

4 \(\lambda\omicron\omicron\omicron\omicron;\) could mean account here, but it would still refer to Parmenides' argument (Lesher: 1984, p. 22). So the translation of reason would not be misleading even if it were not strictly accurate. However, \(\lambda\omicron\omicron\omicron\omicron;\) could not refer to the preceding steps of the argument since these constitute the "much contesting refutation" (see note 5); so if it meant account, it would presumably refer to the following steps of Simp. Phys. 145.2-146.22 (88.2-49). But the idea that Parmenides is being instructed to judge the first steps of the argument by the latter steps seems odd. Consequently, lines 5b-6a simply make more sense as an instruction to apply the faculty of reason to the preceding argument.

5 The sense of \(\varepsilon\xi\gamma\chi\omicron\omicron;\) refutation here is much contested. Refutation, proof, test and other senses are all attested before and in Parmenides' time (Furley: 1989/3, pp. 39-44; Lesher: 1984, pp. 3-9). So to decide between these possible meanings we must turn to Parmenides' text. I think it is now generally accepted that the reference of \(\pi\omicron\omicron\omicron\omicron\omicron;\varepsilon\xi\gamma\chi\omicron\omicron;\) much contesting refutation is not to what follows this fragment (the arguments of Simp. Phys. 145.2-146.22 (288.2-49)) but to what precedes it – the elucidation of the three roads of inquiry (see below; and ch. 6). This seems unavoidable given the next line: \(\varepsilon\mu\omicron\omicron\omicron\omicron;\pi\omicron\omicron\omicron\omicron;\) what I have said (Lesher: 1984, p. 12; Mourelatos: 1970, p. 91 n. 46; Taran: 1965, p. 81). So the question as to what is the appropriate translation of \(\varepsilon\xi\gamma\chi\omicron\omicron;\) turns on the question as to just how Parmenides proceeds in his elucidation of the three roads of inquiry. If he proceeds by a disjunctive syllogism, then the appropriate translation is ambiguous between proof and refutation. If, as Lesher (1984, pp. 16-7) argues, "the elenchos ... is just the orderly examination of each of the available ways of thinking", and the success or failure of each road is independent of the success or failure of the other roads, then the \(\varepsilon\xi\gamma\chi\omicron\omicron;\) is a test. But if, as I argue (in ch. 6), the first and only true road is essentially just assumed, and the bulk of what immediately proceeds this fragment, and continues in it, is the disproof of the other two roads, then the appropriate translation is refutation.

Although I believe that the \(\varepsilon\xi\gamma\chi\omicron\omicron;\) is both contesting and contested – that is, both on the attack and under attack – I have translated \(\pi\omicron\omicron\omicron\omicron;\varepsilon\xi\gamma\chi\omicron\omicron;\) as much contesting, rather than much contested, for the following reasons. Firstly, this brings out more clearly the idea that the contest is ongoing. Clearly, line 1a (as I have translated it (see note 3)) means that the contest is ongoing. And the point of learning mortal opinions "so that no mind among mortals will ever overtake you" (Simp. Phys. 39.9 (B8.61)) does only seem to make sense if the battle is not over with the first presentation of the \(\varepsilon\xi\gamma\chi\omicron\omicron;\) (Lesher: 1984, pp. 23-9). Secondly, this fragment, especially lines 1-2, seems to be primarily an enjoiner to Parmenides to do battle, using the \(\varepsilon\xi\gamma\chi\omicron\omicron;\) against the adherents of the road of "the things which are not are".
the organ of speech; and ἀκούη ear can also mean a noise heard, thus representing the organ that hears noises and sounds generally, or a report heard, thus representing the organ that hears speech. Hence the phrase “ringing ear and tongue” could be an allusion to aural and gustatory illusions, or to the delusions of mortal opinions (Barnes: 1979, p. 297). Although taste seems an odd sense to use in reference to the capacity of the senses to deceive, the only passage prior to Parmenides that may have referred to this capacity did use the example of taste (53) (see ch. 3). ηχής ringing could be used literally to refer to ringing in the ears, which could be an example of the senses distorting objective reality; or it could be used more figuratively to refer to what is said and heard. That is, it is consistent with either of the suggested readings of “ringing ear and tongue”. However, ηχής does appear to qualify both ἀκούη and γλώσσα, otherwise γλώσσα simply hangs at the end of the sentence saying or suggesting nothing. But the literal meaning only makes sense as a qualification of ἀκούη alone. This tips the scales in favour of “ringing ear and tongue” being an allusion to the confusion of certain opinions, rather than an expression of scepticism about the senses.

I think it is quite reasonable to paraphrase ἔθος habit as habit of thought, simply because it is a road of inquiry that it forces one along. We might reasonably infer from this that Parmenides’ complaint about certain opinions is that the people who hold them are too set in their ways to appreciate Parmenides’ poem, which most certainly contained a radically new way of thinking. This leads us to ask ‘what are we to make of πολύπειρος much experienced?’ It could mean nothing more than that habits are things that are often repeated – that is, we often experience ourselves doing something that we do habitually – which is, of course, tautologous and adds nothing to our understanding of the habit involved. However, there are reasons to take πολύπειρος as alluding to an empirical base for the relevant habits – that is, Parmenides was condemning certain habits of thought based on the senses. Coxon (1986, p. 191) points to its use with ἵστορια (Plut. Sol. 2.1) – essentially an empirical, ‘fact-finding’ inquiry (see ch. 4) – giving it the sense of empirical experience. Also it derives from

---

6The latter is reinforced by Parmenides’ many associations of speaking and thinking (cf. Coxon: 1934, p. 135; and see ch. 6).
7Tarán (1965, pp. 77, 80) only allows the literal sense of ηχής, and he accepts that this means ηχής only qualifies ἀκούη. His argument as to why γλώσσα need not be modified is that it should be taken with ἔθος πολύπειρον much experienced habit (hence Parmenides is rejecting “all customary language but not all kinds of language” (p. 80)). But the restriction to the literal sense is unnecessary, and taking γλώσσα with ἔθος πολύπειρον results in a cumbersome structure.
8The word translated here as inquiry is διζήμας. This noun form appears to be Parmenides’ own invention and is presumably derived from διζήμα seek after a thing (Mourelatos: 1970, p. 67). This verb need not have the implication of intellectual searching that we find in inquiry, but this is clearly the sort of searching involved in Parmenides’ poem.
9Tarán’s (1965, p. 77) suggestion of “ingrained habit” is probably a good translation of ἔθος πολύπειρον in this case: this makes πολύπειρος essentially emphatic, so it is not vacuously tautologous.


πείρα\textsuperscript{10} trial, experiment, which suggests empirical inquiry, rather than merely repeated use.

This leaves “guiding an aimless eye” as the last phrase that we must examine. ἄσκοπος aimless could be one of two quite distinct words: one meaning random or aimless, the other meaning heedless or unseen. The second word, as an attribute of an eye, would then give us unobservant or unseeing. I prefer aimless for the following reason.\textsuperscript{11} We have already seen that πολυπειρός derives from πείρα which suggests a kind of trial and error – that is, random – experimentation. And this appears to contrast with ἔλεγχος refutation, proof or cross-examination, which, I presume, alludes to the more systematic reasoning exemplified in the bulk of the Way of Truth.\textsuperscript{12} And since it is ἔθος πολύπειρον that guides (or directs) the eye, ear and tongue it seems reasonable for the randomness suggested in this phrase to be echoed in ἄσκοπον ὡμα καὶ ἡχέωσαν ἄκουην καὶ γλώσσαν “an aimless eye and ringing ear and tongue”.

Now there is no doubt that the phrase “aimless eye” constitutes some criticism of the senses. The question is, ‘is Parmenides criticising the eye when it is aimless – that is, I presume, when it is not guided by reason, but by habit – or is he criticising the eye because it is by its nature aimless, hence always aimless?’ Taran (1965, pp. 79-80) is certainly right in saying that just because eye and ear are qualified it does not follow that Parmenides is concerned with some sub-category of visual and auditory perceptions. On the other hand, no evidence is provided, based on (123) alone, as to why we should take him to be criticising all sensory perception, and I can certainly add nothing myself.

Finally, we should note that even if the eye always lacks direction, we still don’t know to what end, on what subject, sight then fails to help us. It could mean that sight is useless for the study of scientific matters, say; but that our direct visual experiences are perfectly accurate in themselves. Indeed, something like this is strongly suggested by the very idea that our eyes are “aimless”: this implies that the problem is getting beyond our direct visual experiences. This suggestion is further reinforced by Parmenides’ reference to a road of inquiry, and by the claim that the empirical habits are guides: our everyday empirical experiences are not something we have to get to, they are just there.

In summary, (123) clearly contains an appeal to reason, but in addition it seems to contain two further distinct ideas: (i) certain opinions are confused; and (ii) the senses are misleading (whether this is always or only sometimes the case is not clear). But, although distinct, these ideas are clearly related. Both the confused opinions and the aimless eye result from the empirical habits. And the fact that reason is introduced in opposition to empirical habits – the goddess enjoining Parmenides to judge by reason instead of being guided by empirical habits – also suggests that those who travel the road of “the things which are not” do so in the absence of reason.

\textsuperscript{10}πολύπειρός is the adjectival form of the feminine noun πολύπειρον great experience (and possibly Parmenides’ own coinage (cf. Liddell: 1940)).

\textsuperscript{11}Although random probably fits my argument better, it simply doesn’t go well with νομίμωσι guiding (but see note 20).

\textsuperscript{12}Although it refers to only the earliest steps in this (see note 5).
But what does all this tell us about rationalism and scepticism? Unfortunately, very little. (123), by itself, is not enough to conclude that Parmenides held even the weaker forms of rationalism (r) or scepticism (s): the appeal to reason is not an appeal to use reason alone; and the criticism of the senses does not say that knowledge, in the as yet unspecified subject, can never be attained by the senses. (123) does, however, suggest that Parmenides was not a sceptic (S): it does seem that the problem is getting beyond direct experience; the problem is not direct experience itself. The epistemological claims of (123) may have been expanded on in another fragment, which we must now turn to. This contains even less direct information on Parmenides' attitude toward either reason or the senses, but it does flesh out the relationships between the ideas found in (123).

WITH WANDERING MIND AND KNOWING NOTHING

It has been claimed that (123) follows on immediately, or soon, after:

For [I restrain you] from this first road of inquiry, but also from this [road], which mortals knowing nothing wander, two-headed: for helplessness in their breasts guides their wandering minds. Those who are carried deaf and blind alike, astonished, people without judgement for whom being and not being are taken to be the same and not the same, and for all the path is turning backward (124: Simp. Phys. 117.6-13 (B6.3-9)).

The road described in this passage is Parmenides' third road of inquiry. (The first and second roads (128) will be dealt with in detail in chapter 6: for now we should note that they are the road of what is and what is not – of beginning with the assumption of existence or with the assumption of non-existence – respectively. This third road is then categorised as the road that begins by assuming both existence and non-existence, although this formulation of the third road is not immediately informative, as we shall see). If this does precede (123), then (123) is probably also concerned with this third road. There is some suggestion of this in the passages. Perhaps the people of (124) are blind because their eye does not fall on what matters, being aimless; and deaf because their ear is ringing (cf. Long: 1963, p. 95).

13These lines, 1-2a, clearly state that there are two false roads. It has been claimed that there is in fact only one (eg. Loenen: 1959, p. 88; and see ch. 6 note 4), but this is clearly wrong – there are two false roads, we have just been told this clearly and unambiguously. This is so even though "I restrain you" must be supplied (there is a lacuna in the text): clearly the road elucidated here is a false road and the connection αὐτὰ ἐπειτα but also makes it clear that both roads referred to are on a par.

14Πλάστοντα wander is usually taken to be either a corruption of πλάστοντα (from πλάσω wander), or a Byzantine correction of πλάσοντα, which is, in turn, an Italian variant of πλάστοντα (Coxon: 1986, p. 183). Clearly wander fits in better than any sense of πλάστω make. But something like 'create in their minds' is not completely impossible: giving us, say, 'the road of inquiry which mortals who know nothing create from their own imaginings'. This would go some way to explaining why this third road is not one that 'can be thought of' (see ch. 6 esp. note 4) – ie. this third road is just a product of fancy, not serious thought.
Also υοιξω are taken has the possible sense of ‘believe as a result of ἐθος custom’. Finally, the ‘wandering’ of this passage seems to be reflected in the ‘aimlessness’ of (123). In short, there is a reasonably strong overlap of language, and tone (both are fairly abusive), between these two passages, and this does suggest a connection. But does (124) provide us with any greater insights into the epistemology of Parmenides even if we do take it to be related to (123)?

We are told that (124) is describing the path of ignorance (or some particular form of ignorance), so if Parmenides is a sceptic about the senses, we might expect this ignorance to be based in the senses. Not too much can be made of his characterising the ignorant as deaf and blind. This is clearly not to be taken literally – that is, only people with sense impairments are ignorant – indeed there is little reason to take it as anything more than a metaphorical way of restating that these people are ignorant.15 The most Parmenides can be accused of, if, indeed, he is a sceptic concerning the senses, is that this particular metaphor for ignorance was ill chosen.16 And, besides the reference to deafness and blindness, there is nothing else that has obvious bearing on the senses. But what else might this passage tell us about Parmenides’ theory of ignorance?

The following are attributed to the ignorant: (i) they wander, more specifically their minds wander; and (ii) this wandering is caused by ἀνήχανή helplessness, or perhaps want of means;17 but (iii) they are also said to be carried;18 (iv) they are ἀκριτος without judgement, or perhaps disorderly, indecisive; and, finally, (v) they believe that being and not being are both the same and not the same, and this belief, as I have suggested, may be based on ἐθος custom, habit (cf. Tarán: 1965, p. 62).19

15A similar usage is found for deafness in Heraclitus ((107) and (109)); and for blindness in Sophocles: τυφλος τα τι ὀτα τον τε νοην τα τι ὀμματι ει you are blind in ears and mind and eyes (Oed. 371; tr. Betts: 1989) (the person addressed is in fact blind in his eyes). But τυφλος blind is used by Pindar (Paean 7b13) to denote an inability to distinguish, which Tarán (1965, p. 63) takes to imply that the people of (124) are even more deeply ignorant than those of (123): the latter derive their understanding of being from contemplating the empirical world; but the former are unable even to distinguish or judge about this empirical world that they can see. However, I see no reason to suppose that (123) and (124) do not denote the same people even if τυφλος does denote an inability to distinguish: it could be precisely this inability that makes the eye aimless.

16I do not think it can be argued that Parmenides would simply not have chosen such a metaphor if he was a sceptic about the senses. If he were that sensitive about his language conforming to the substance of his philosophy, he would hardly have claimed that his ungenerated and unchanging being is μουνσενας only begotten or τεξειος finished (Simp. Phys. 145.4 (B8.4)) (although μουνσενας has been rejected as part of the text for just this reason (Burnet: 1945, p. 174 n. 4); and τεξειος is an emendation of the mss., but a necessary one (Owen: 1960, p. 102)).

17They are also astonished. But this contains no significant additional information, that I can see, over and above their helplessness.

18Φοικεω are carried implies that this being carried along is a fairly permanent state. So if we were to take (123) as following immediately on (124), this would fit in well with my suggestion (in note 3) that the way of ἐινα μη ἐντα will never be subdued for the majority, or whoever the Φοιλον people of (124) are.

19They are also two-headed. But the most straightforward way of taking their two­headedness is that they have the tendency to see being and not being as the same with one
Now what are we to make of the claim that the ignorant are both wandering and carried (by some unspecified force)? This implies that they are not wandering under their own steam. Whereas the image of a wanderer conjures up someone who has no particular desire to go left or right, but is completely free to choose whether to go left or right, it would seem that Parmenides’ wanderer has the aimlessness of this image, but some force other than the wanderer’s own will takes over and directs his actions — that is, παρακτός wandering reduces to ἁσκότος aimless. This suggests two questions: what takes over the wanderer’s aimless life and what is needed to give him back both direction and self-determination? We are told that the wandering is guided by ἀμυχανίν, but this is essentially a negative quality, it merely reinforces the fact that mortals wander because they lack something. The only things that mortals lack in (124) are knowledge and judgement. Since (124) is a false road of inquiry, ignorance is surely its final product. This leaves judgement as the best candidate for what would give the wanderer some direction (and hence cure his ignorance). As for that which directs a man in the absence of judgement (assuming it is mentioned in (124)), this could be the belief that being and not being are the same and not the same, or it could be the custom, or common opinion, that νομίζω suggests this belief is based in. The connection between wandering and this belief is clear if two-headedness is simply a reference to this belief, as I believe is the case.

Now, I assumed that (124) immediately precedes (123) because of some apparent overlap in the language of the two passages; but, in attempting to cash out (124) on this assumption, an even stronger overlap of structure emerges. This strengthens the thesis that (124) and (123) are connected, but it means that much of (124) simply repeats (123). However, even where (124) repeats (123) it can strengthen or clarify the relevant point. The story we get from combining these passages is as follows. The root of the problem is the absence of the judgement or reason that Parmenides is instructed to be guided (to judge) by. The suggestion in (123) that those who travel the third road, labelled the βροτοί, proceed without reason is confirmed in (124) (I see no reason not to equate judgement with άμυχανίν reason). (124) then makes it clear that reason, or judgement, is necessary for inquiry: without judgement, the βροτοί are ἁμυχανίν helpless head and not the same with the other (cf. Tarán: 1965, p. 63); so two-headedness adds no new attribute to the ignorant over and above (v).

Coxon (1986, pp. 183-4) claims that δίκεφας two headed is an allusion to a fabulous snake, the amphisbaena. This has poor vision, which relates to τυφλός blind; and can move in either direction indifferently, which relates to παλίντροπος turning backward. But such an allusion is of little help: it only suggests that the different attributes of the ignorant are connected, it is no help in determining just how they are connected.

20Coxon (1934, p. 134) may be right that this passage is full of “purposely contradictory terms” — the contradictory psychology of ignorant mortals resulting from the contradictory belief that being and not being are the same and not the same.

21Coxon (1986, p. 184) thinks this is the θυμός will (Sext. M 7.3 (B1.1)) that allows Parmenides to reach the end of the road to the house of Justice, where the goddess imparts to him the contents of his poem. This is certainly part of what is missing — the lack of will is just the negative corollary of being carried — but I doubt it is the whole story.

22See note 19.
or without any means to pursue their inquiry; hence reason must be the only acceptable guide in this inquiry. (123) tells us that in the absence of reason (hence any acceptable guide) the βροτοί fall back on certain empirical habits. In (124) it would seem that Parmenides formulates these empirical habits as the belief that “being and not being are ... the same and not the same”. This is not explicitly spelt out in (124). We saw that υοικω could mean that this belief is based in ἑθος, but why suppose that it is so based? Principally, the probability of this conclusion is determined by how well the other elements of (124), and their relationships, correspond to the elements of (123): that is, this belief probably corresponds to the empirical habits since ignorance corresponds to the confused opinions (“ringing ear and tongue”), judgement corresponds to reason, the wandering mind corresponds to (but is not identical with) the aimless eye, etc. We then learn from (123) that these habits ‘guide’ the senses (at least vision) along an aimless course (the third road); and (124) adds that the minds of the βροτοί are similarly ‘guided’ along this course. But in (124.4) we are then told that the βροτοί are in fact ποτεω carried, suggesting an element of compulsion in this ‘guide’. In this state of aimless compulsion ‘mortal’ opinions are confused (123), and this is the nature of mortal ignorance (124).²³

The above interpretation certainly makes reason necessary for knowledge of something; and certain empirical habits are clearly derided. But before we can say much more than this we must ask (i) just who are the βροτοί or φύλον people and (ii) just what are they ignorant of?” Let us first consider question (i). βροτοί εἴδωτες οὐδὲν mortals knowing nothing could mean that all mortals (except the Eleatics) are ignorant, or that the third road is about a certain sub-set of humanity – namely, those ignorant on some particular subject. The first alternative is suggested by the fact that it is ἑθος that leads us astray: the sense of custom suggests that the error is widespread in the community. Furthermore, the thrust of the third road does seem to be that everyone lacking reason will be ignorant; if this refers to Eleatic reason, then all the Eleatics must be ignorant.²⁴ But the second alternative is suggested by “people without judgement”: here the qualification seems less ambiguously restrictive.²⁵ Furthermore, Coxon (1986, p. 183; 1934, p. 134) claims that the attribution of the third road as a road of inquiry (123.2) is sufficient to make it a road of philosophers, as opposed to people in general. More specifically, it has been argued that (124)

²³Schematically (with references to (124) on the left of the dash ‘/’; and those to (123) on the right): lack of judgement/reason ⇒ (leads to) helplessness or lack of (appropriate) means ⇒ being carried by the belief that being and not being are the same and not the same/being guided by empirical habits ⇒ wandering mind/aimless eye ⇒ ignorance/confused opinions.

²⁴Verdenius (1964, p. 56) argues that βροτοί refers to all mortals essentially as follows: the third road is, as I have argued, based on empirical phenomena, and everyone accepts the empirical world as true, so everyone follows the third road (cf. Cornford: 1933, pp. 100-1). But the thesis that this road is based on empirical phenomena doesn’t necessarily mean it is about empirical phenomena. That is, the βροτοί need not be everyone who accepts empirical phenomena: the βροτοί could be just Parmenides’ predecessors, say, whose scientific theories (about the unseen) are based in (derived from) empirical phenomena.

²⁵And aside from the qualification, the word φύλον itself suggests a group of people less than humanity as a whole since it “refers to a crowd the members of which are of the same kind” (Loenen: 1959, p. 91 n. 186) – this underlies its various senses such as clan, class or nation.
is directed against Heraclitus, or, more plausibly, the Heracliteans. The claims that Parmenides alludes to Heraclitus in (124) and that the βροτοί are ordinary people (or non-Eleatics) need not be incompatible: the βροτοί could be people in general, and the allusions to Heraclitus could still be intended; Heraclitus being a paradigm of ordinary mortals who believe in the empirical phenomena, change or the like (cf. Guthrie: 1965, pp. 24-5).

As for question (ii), just because it is the senses that mislead (at least sometimes) doesn’t mean that it is empirical phenomena that the βροτοί are ignorant of; as already suggested, the point could still be that the senses are useless for gaining knowledge on scientific matters viz knowledge on matters beyond the empirical phenomena (compare Xenophanes in ch. 3). However, it has been suggested that the use of the plural ἔνντα things in (123.1b) (as opposed to the exclusive use of the singular for the first and second roads and throughout the Way of Truth) denotes the plurality of empirical phenomena (eg. Tarán: 1965, p. 75). This seems plausible taken in combination with the allusions to the senses in (123). This would make the third road a road of empirical phenomena. But this could still cash out as the road that begins with empirical phenomena, rather than being about empirical phenomena. All the same, the very fact that Parmenides refers to unqualified ignorance does present a prima facie case that the βροτοί are ignorant generally – that is, they know nothing about anything. And if people had an essentially empirical conception of knowledge (which does seem to be the case (see ch. 1)), a denial of the empirical phenomena would lead to a generally ignorant populace.

THE WAY OF OPINION

There are good reasons to think that (123) and (124) constitute a preliminary discussion of the Way of Opinion – that is, the third road and the Way of Opinion are one and the same. Principally, this Way is described as the opinions of βροτοί ((126.3); Simp. Phys. 38.31 (B8.51)). In the absence of any reason to think otherwise, this really is enough to conclude that the

26 More plausibly the Heracliteans because the reference is to a group. Certainly, in verse the plural can be used with a singular meaning (and the plural can be used to express contempt (Tarán: 1965, pp. 61-2), which certainly fits (124)), so βροτοί could still refer to a single individual. φέλον, however, means race, tribe and the like: that is, in the singular it still refers to some group of people. The evidence for (124) being directed against the Heracliteans is principally: (i) the use of the word πᾶντα τρωτονoc turning backward, which Heraclitus may or may not have used in (70); and (ii) the supposition that “being and not being are ... the same and not the same” alludes to Heraclitus’ theory of the unity of opposites (and see ch. 6 note 27). There is some evidence for the latter point in Heraclitus: in one fragment people are said to both be and not be (Her. Hom. 24.5 (22B49a)); he seems to say that the opposites are the same in some fragments ((113); Ps-Plut. Apoll. 106e (22B88), which also contains the phrase πᾶλιν μετεπεμφόντων will change back) (but see ch. 4 note 90); and in (70) we are told that “in differing, it agrees with itself”. This last passage can be taken as saying that contraries are the same yet they are different, and if Parmenides reduces contraries to being and non-being, he would characterise this as claiming that being and non-being are the same and not the same (Tarán: 1965, pp. 69-72). Against this, the phrases “mortals knowing nothing” and “people without judgement”, and the force of “much experienced habit” (Guthrie: 1965, p. 25) hardly seem to denote a particularly specific target.
third road and the Way of Opinion are the same, but there are other connections. "Being and not being are ... the same and not the same" is echoed in the Way of Opinion: light and night being equal (the same) (Simp. Phys. 180.12 (B9.4)) and distinct (not the same) (Simp. Phys. 39.3-4 (B8.55-6)) (cf. Simp. Phys. 39.4-6 (B8.56-8)) (Coxon: 1934, p. 141).27 Verdenius (1964, p. 55) suggests a further connection in that the πλακτός νός wandering mind of (124.4a) is analysed in (127), which is part of the Way of Opinion (see below).28

So can we improve our picture of the third road on the assumption that this road is spelled out further in the Way of Opinion? Indeed we can. The subject matter of the Way of Opinion is clearly scientific: it is an account of the origins and explanations of the phenomenal world of the form found in the Milesians and, to a lesser extent, Xenophanes and Heraclitus. Given this, it does not seem, on the face of it, that Parmenides is rejecting the empirical phenomena of direct experience in themselves in this Way. It is important to be very clear on this point. The Way of Opinion, of course, presupposes the existence of the observable phenomena, but very little in the extant fragments of this Way can be taken as a statement of anything we know from direct experience – as a description of observable phenomena. There is “the circling works of the round-faced moon” (Clem. Misc. 5.14.138.1 (B10.4); tB), which might allude to a description of the observable behaviour of the moon. This might then be given in “another’s light, night-shining, wandering about the earth” (Plut. Col. 1116a (B14); tB).29 There are also the “destructive works” of the sun (Clem. Misc. 5.14.138.1 (B10.2-3); tB), which could refer to the observable effects of the sun’s heat when particularly intense – drying up water and crops and generally making life difficult. But these references are too brief or incomplete to be taken as unambiguously just describing observable phenomena. Finally, “these things grew and now are, and then, after this, having matured they will cease to be” (Simp. Heavens 558.9-11 (B19); tB) could be describing the growth and decay that we witness in our every day life; but what we have of the Way of Opinion suggests that the reference is to things more astronomical – the earth, sun, moon, and stars – that we have not experienced coming to be or ceasing to be (cf. esp. Simp. Heavens 559.22-5 (B11)). In short, Parmenides did not obviously, as it is often claimed, use the

27 Long (1963, pp. 99-100) claims that the connection is even stronger than this – namely, the two μορφή forms, the naming of which leads mortals astray (125), are not light and night but the being and not being of (124.6). The problem with Long’s thesis is that it is hard to see how not being could be called a μορφή form. He points out that the sense of μορφή is more shape or shapeliness than form, and this makes it more appropriately a designator of quantitative being than of the qualitative opposites (p. 101). But the difficulty with referring to not being as shapely seems far worse than any difficulty with referring to qualitative stuffs in this way.

28 An apparent problem with equating the third road and the Way of Opinion is that the goddess urges Parmenides to stay off the third road in (123.2) and (124.1-2a), but she insists that he does learn the Way of Opinion (126.1-3). Verdenius (1964, p. 58), I think rightly, takes the injunction to stay off the third road to mean that Parmenides should not follow the third road in the same way that mortals do – ie. taking it as a true road.

29 Although if “another’s light” does in fact refer to the discovery that the moon’s light is really a reflection of the sun’s, this attribute is not merely descriptive of observable phenomena.
words ἐσικότες apparent, δόξα opinion etc. (see below) "with respect to the world of sensible things" (Mourelatos: 1965, p. 362); he only obviously used them with respect to scientific theories about the world of sensible things.

The fact that the Way of Opinion is about scientific matters suggests that it is a way of philosophers. But the Way of Opinion is one particular cosmology. So it seems that we must ask "which philosophers is the Way of Opinion about?" I presume there is little sympathy today for the interpretation of the Way of Opinion as a doxography of the cosmologies of Parmenides' predecessors, or some particular predecessor. Although its purpose and scope are those of earlier cosmologies, its content simply does not bear even a passing resemblance to any of Parmenides' predecessors, except the Pythagoreans, and here the resemblance is only passing - it results solely from the dualism of both Pythagoreanism and the Way of Opinion. Furthermore, all ancient commentators regarded the cosmology of the Way of Opinion as Parmenides' own invention (Arist. Met. 986b31-5; Alex. Met. 31.12 (A7); Plut. Col. 1114d (A34)). Since the Way of Opinion is Parmenides' own invention, we can at least say that it has no specific target; presumably, in rejecting the third road, Parmenides was rejecting all philosophers who make the same error as that presented in the Way of Opinion. But even before determining just what that error is, there is reason to suspect that all Parmenides' philosophical predecessors made it: the unqualified references to "the opinions of mortals" (126.3) and "mortal opinions" (Simp. Phys. 38.31 (B8.51)) suggest that everyone is ignorant of the subject of the Way of Opinion - the bulk of humanity, who have made no effort at scientific inquiry; and Parmenides' philosophical predecessors, who have made the effort unsuccessfully. Furthermore, the Way of Truth presents a radical new philosophy that seems at odds with all that preceded it.

So, if the Way of Opinion and the third road are indeed the same, we seem to have an answer to just who the βπότοι are and what they are ignorant of: the βπότοι are strictly everyone except the Eleatics, although principally Parmenides would have had his philosophical predecessors in mind; and they are ignorant of scientific matters. However, there is one possible difficulty with this. If the βπότοι are indeed ignorant of scientific matters because their theories essentially follow the pattern of the Way of Opinion, then the Way of Opinion should be false. This is what the goddess seems to tell Parmenides throughout the poem; but Verdenius (1964, pp. 51-9) argues that this is not what she is really saying. If he is right, it would seem that the subject of the Way of Opinion, science, is not what the βπότοι are ignorant of: rather they are ignorant of something else because science leads them away from this other thing. As we shall see, this other thing

---

30 There is no trace of the two most fundamental Pythagorean doctrines - the dualism of Limit and Unlimit and the equation of things and numbers (Kirk: 1957, pp. 279-80; Raven: 1948, p. 37). But for a defence of the position that the Way of Opinion was Pythagorean see Burnet (1945, pp. 183-94).

31 And what need is there for the goddess to teach Parmenides what he could learn for himself - mortal opinion from a mortal viewpoint (Clark: 1969, p. 18; cf. Chalmers: 1960, p. 11)?
would have to be some superior, or absolute, reality rather than the inferior, or relative reality of the Way of Opinion.

Verdenius is certainly right that ἑοικότης (Simp. Phys. 39.8 (B8.60)) need not mean merely apparent or likely, but can mean fitting, and to describe the Way of Opinion as a “fitting order” is hardly critical (p. 51). κατὰ δόξαν according to opinion in Parmenides’ concluding comments on the Way of Opinion (Simp. Heavens 558.9 (B19.1)) does seem to qualify Parmenides’ conviction in this Way, but this is hardly a statement of its falsity (cf. p. 58); and the statement that “there is no true trust” in mortals’ opinions (126.3) can be taken in much the same way. The following apparently claims that the fundamental principle is an error:

For they proposed in their minds to name two forms, one of which is not right – in this they are led astray (125: Simp. Phys. 39.1-2 (B8.53-4)).

But this also need not mean that the principle, and all that is built on it, is false: it could be an error only because it leads away from absolute reality (cf. Clark: 1969, p. 26). That is, although it is not completely false, it does obscure the more important and fundamental truths of the Way of Truth. This does mean that at best the Way of Opinion is a lesser reality, at least in being less important. However, it is most natural to take this claim as implying that the fundamental principle, hence the whole Way of Opinion that is built on this principle, is simply false. Most damaging to Verdenius’ position is the description of the Way of Opinion as ἀπατηλὸς fraudulent or deceitful (Simp. Phys. 38.32 (B8.52)). Verdenius argues that this should be interpreted as meaning that the Way of Opinion is a distortion of the truth – again, because it treats relative reality as the absolute reality. In defence of this last point he cites similar uses by Plato of the noun equivalent, ἀπάτη (Phaedo 83a4; Sophist 264d6-7) (pp. 58-9). But this may simply be due to Parmenides’ influence on Plato – that is, Plato uses virtually the same word to describe his derivative reality simply because Parmenides used it to

32See note 39.

33It has been argued that the expression τῶν ἐτέρην would have been used if Parmenides meant ‘one or the other of which’, not τῶν μίαν one of which (eg. Cornford: 1933, p. 109). But this hardly seems decisive, indeed “the fact that Parmenides is emphasising the numbers here involved is enough to make the contrast between μίαν and δύο the most natural expression for the context” (Long: 1963, p. 100). But, most significantly, Aristotle read these lines to mean that one of the forms should not be named, and whatever we think of Aristotle’s interpretation of Parmenides “he can hardly be accused of deliberately misunderstanding his own language” (Long, pp. 100-1; cf. Mourelatos: 1970, pp. 80-3).

34See Mourelatos’ (1970, p. 84) discussion on the logic of negating χρή right.

35And Empedocles (Simp. Phys. 160.9-10 (31B23.9-10)). Verdenius over-interprets these lines, which mean, essentially, ‘do not be deceived that there is any other source [than the four elements] for the things we see’, whereas Verdenius would have us read ‘do not be deceived that the source of things is in what we see, [rather than the four elements]’. But, even on Verdenius’ interpretation, we must add that the source is more real than its products before this passage presents a suitable parallel to the alleged meaning of ἀπατηλὸς in Parmenides.
describe the closest thing to this in his philosophy. In short, Verdenius does demonstrate that no statement of the goddess about the Way of Opinion must be taken as saying that it is false. If it is not false it must be, as Verdenius claims, in some sense less real or valid than true being. However, the most natural reading of some of these statements is still that the Way of Opinion is simply false.

But if the Way of Opinion is false, an apparent difficulty arises from the fact that it is Parmenides’ own invention: why should Parmenides invent a lie? After all, what remains of the Way of Opinion presents a finely worked out cosmology – why go to such trouble to construct what is only to be rejected? Verdenius (1964, p. 60) argues, firstly, that the Way of Opinion is expounded in a systematic style that suggests conviction. Secondly, Parmenides has to learn all that is stated by the goddess (126.1-3) because this will allow him to surpass all (Simp. Phys. 39.9 (B8.61)); but how can merely learning the erroneous position of others help to surpass those others (p. 48)? However, is the goddess really just recounting the erroneous position of others? The reason for inventing his own cosmology could well be to draw out the error of past cosmologies that has led Parmenides to reject them. And surely drawing out the fundamental source of an error is sufficient reason for both systematically expounding a false cosmology and expecting it to be learnt. Furthermore, it is precisely because the fundamental source of the error is drawn out that Parmenides will surpass all in hearing the goddess’ account of mortal opinions as opposed to the form in which it is habitually accepted (cf. Owen: 1960, p. 85).

I do not think we need to accept that Plato believed that Parmenides’ Way of Opinion was the same as his derivative reality, let alone accept that such a belief would have been correct. The essential error is transferring the concept of change to the basic principle on which their cosmology is built (see below). But, although I believe that drawing out this error is the main point of the Way of Opinion, it is probably not the only use Parmenides made of it. Many of the features of the Way of Opinion are poor copies of the criteria spelt out in the Way of Truth. These features that are close, but not close enough, to the conditions required of a correct cosmology then serve the purpose of clarifying those conditions – eg. being is ‘full’, but not in the sense that a mixture can be full (Mourelatos: 1976, pp. 58-9; 1970, pp. 247-53, 261).

It has been argued that, though false, the Way of Opinion still presents “the best possible account” (Long: 1963, p. 106) of scientific matters. I must confess, with Curd (1992, pp. 112-3) and Clark (1969, p. 23), to a difficulty in understanding what a best possible or most plausible, yet thoroughly false, account could be. But the supporters of such a position typically explain the point of including such a cosmology in the poem by saying it is dialectic (eg. Long, pp. 104-6; Owen: 1960, p. 89). For the purposes of dialectic, presumably, ‘most plausible’ would best cash out as most convincing on face value, or before the falsifying flaw is drawn out: the idea being that if this account can be shown to be wrong, what hope is there for anything mortals might formulate for themselves. But this only works if all possible accounts ultimately have the same flaw (if not, the goddess’ account simply ceases to be the most plausible account after pointing out its fundamental flaw). Hence we would expect the dialectic purpose to be best served by that account which draws out the fundamental flaw most clearly – in which case it is not likely to be the most initially convincing or plausible account (cf. Guthrie: 1965, p. 71)! (Raven (1948, p. 41) is an exception in that he makes it perfectly clear in what respect he believes a completely false account can still be the best possible – “because ... it does not fall into the error, common to all other cosmogonies and particularly the Pythagoreans, of confusing reason with perception”. More typical, I suspect,
Another reason given for attributing some truth to the Way of Opinion is found in the following:

You must learn all things,
both the unwavering heart of persuasive truth,
and the opinions of mortals, in which there is no true trust.39
Nevertheless you will learn these things too, how that which seems
[to mortals]40
ought truly be, all things being through all things
(126: Simp. Heavens 557.25-558.2 (B1.28b-32)).

I do not think it can be, or has been, seriously doubted that “the opinions of mortals” refers to the Way of Opinion. But (126.4b-5a) seems to give too much validity to the opinions of mortals – it seems to put them on a par with the being of the Way of Truth (Owen: 1960, pp. 86-7).42 Consequently,
many commentators take δοκίμως truly in the watered down sense of acceptably (Coxon: 1986, p. 170; Taran: 1965, pp. 212-3; Verdenius: 1964, p. 49) in spite of the fact that in the only other examples of the word (Aesch. Per. 547; Xen. Cyro. 1.6.7) the meaning is really, genuinely (Taran: 1965, p. 213 n. 27), and the fact that "the δοκίμως is the reliable man" (Owen: 1960, p. 86; but cf. Mourelatos: 1970, pp. 198-204). Alternatively, the emendation δοκιμώσα (from δοκιμάζω test) has been suggested (cf. Owen, pp. 87-8).

The problem with this is that δοκίμως is found in all mss. (p. 86). Furthermore, Owen argues, most translations suffer from "an intolerable twist": they make "that which seems to mortals must truly be" a comment on the nature of mortal opinions (as opposed to spelling out their content) – that is, the goddess is saying she will give Parmenides a second hand account of mortal opinions, and a first hand account of "how the appearances are to be allowed a sort of existence" (p. 88).

Owen's solution is that (126.3-5) can be read naturally as: the goddess says that 'you will learn the opinions of mortals – namely, their opinion that that which seems must truly be, given that this is all there is' (p. 88). Besides avoiding the "intolerable twist", Owen's interpretation also avoids a reading that gives the opinions of mortals too much validity without requiring that δοκίμως be either emended or given an unattested sense. But it is not the shift from a first hand account to a second hand account that is the problem because, as we have seen, the Way of Opinion is not a second hand account of mortal opinions, but through and through a first hand account of the goddess' version of those opinions (cf. Clark: 1969, pp. 20-1).

So how are we to interpret (126) in a way consistent with the following: (i) the Way of Opinion is at least less true than the Way of Truth, if not completely false; (ii) the goddess only gives a first hand version of mortal opinions; and (iii) δοκίμως remains unamended and with its attested sense? Curd (1992, pp. 128-9) suggests that, although (126.4b-5a) does not give any degree of reliability to the Way of Opinion, it does suggest some degree of reliability in mortal opinions other than those represented by the Way of Opinion. The argument is that οὗτος these in (126.4a) refers forward not backward, hence Parmenides is to learn three things – persuasive truth viz the Way of Truth, [certain] mortal opinions in which there is no true trust viz the Way of Opinion, and some other aspect of mortal opinions that is referred to in (126.4-5). This other aspect of mortal opinions shows how that which seems ought to truly be. This is demonstrated, Curd argues (pp. 129-30), by the combined force of both Ways: the Way of Truth gives the criteria by which any account must be tested (pp. 114-6; Mourelatos: 1970, pp. 210-2); the Way of Opinion gives an exemplar of an account that fails this test (pp. 118-25).43 This allows us to treat the reference to mortal opinions as a

interpretation (Phys. 39.10-12 (A34))). But this is hardly good enough. We have just seen numerous references that devalue the truth or reality of the Way of Opinion. So what is it that makes the Way of Opinion in some sense inferior (lacking true trust, deceitful, etc.) to the Way of Truth? Clark's answer to this is unconvincing – the Way of Truth contained a more novel conception, so it was better – that is, the superiority lies in nothing more than Parmenides' arrogance (p. 28).

43Consequently, "how that which seems must truly be" – the conditions with which a correct cosmology must be consistent – is primarily spelt out in the Way of Truth: the Way of Opinion is essentially just a foil to this (see note 41; and ch. 6).
Method and epistemology in the early Presocratics

reference to the goddess' first hand account about those opinions (although Curd does not accept this (p. 129)), without giving too much validity to the Way of Opinion, in the simplest possible way: by severing the reference to 'how things must truly be' completely from the reference to the Way of Opinion. The important consequence of this is, of course, that, although the Way of Opinion is false, not all mortal opinions need be false (pp. 118-25).

One problem with Curd’s version of (126) is that this introductory passage is rather unbalanced if the goddess moves from introducing one part, one chunk, of the poem in one line, then another part in the next, but then some theme that is to be derived from these two parts in the next (but cf. Mourelatos: 1970, pp. 209, 217-8). Furthermore, it does seem that this theme has to be derived by the reader himself with no help from Parmenides. But it is possible that Parmenides explicitly drew out this theme in a part of the poem now lost – immediately after (126), say. And these problems do seem a small price to pay for an interpretation that is consistent with requirements (i) – (iii), above.

So, on the assumption that the third road and the Way of Opinion are the same, the Way of Opinion does flesh out the schema we extracted from (123) and (124). It tells us who the βροτοί are. It also tells us the subject matter of the third road, which is presumably what the βροτοί are ignorant of. But does the Way of Opinion also tell us what the empirical habits are? We are told that this Way is based on a fundamental error (125). This, at least, should result directly from the empirical habits that lead the βροτοί astray. We might expect the problem to be the difficulty of gaining knowledge about scientific matters from empirical evidence. But, oddly enough, the Way of Opinion is more explicitly derived from a priori principles (which constitute the very error in question) than the cosmology of any of Parmenides predecessors. So the rejection of the third road/Way of Opinion cannot be due to a scepticism like Xenophanes (see ch. 3).

The fundamental flaw is the dualism of opposites (Curd, p. 120; Mourelatos: 1979, pp. 8-9; Kirk: 1957, pp. 280-1; Raven: 1948, p. 39). There is no doubt that much of the language of this Way plays on this concept especially in elucidating the two forms (cf. esp. Mourelatos: 1970, pp. 230-1, 237-40, 244-6). This allows the possibility that a pluralism of unopposed forms could still be consistent with the requirements of the Way of Truth (and such a pluralism is just the kind developed by Empedocles and Anaxagoras (Curd, pp. 130-3)). However, although Heraclitus went to great pains to point out the extent of opposition in observable phenomena, its acceptance could hardly be described as an empirical habit. Opposition or contrariety is, indeed, the essential erroneous concept of philosophers: this, I suggest, is what philosophers construct from their empirical habits. The habits themselves seem to be essentially the acceptance of change – a basic feature of empirical phenomena that is most certainly accepted habitually. This is implied by the following. Firstly, “to be and not to be” (137.5b) is listed with a number of kinds of change, so it probably also refers to change. “To be and not to be” may well be an abbreviation of “being and not being are ... the same and not the same” (124.6-7a) (cf. Verdenius: 1964, pp. 53-4). If

44 One possible exception to this is the argument, attributed to Parmenides, that women are hotter than men because they menstruate (Arist. Anim. 648a29-31 (A52)) (see ch. 2 note 49).
this is the case, then (124.6-7a) also refers to change. So if (124.6-7a) does formulate the empirical habits, these habits must involve the notion of change. Secondly, the fundamental principle of the Way of Opinion, the mixing of light and night (Simp. Phys. 39.1-7 (B8.53-9); 180.9-12 (B9)), which it is an error to accept, entails change; and change does seem to be an essential feature of this principle since, with one exception (131.3), naming is either associated with change in general ((137.3b-6); Simp. Heavens 558.9-11 (B19)) or with this fundamental principle ((125); Simp. Phys. 180.9 (B9.1)) (Verdenius: 1964, p. 55).

This seems to entail a radically new idea: the basic principle on which an account of this ever-changing world rests must itself be unchanging. But could the idea be even more radical than this: could it be that Parmenides rejected the reality of change itself? It is, of course, a popular interpretation of Parmenides that he did just that (see ch. 6). However, the rejection of change itself seems to go against much of what we have determined so far about the third road/Way of Opinion. Firstly, the cosmological details of the Way of Opinion would seem to be a red herring: why bother with a detailed cosmology if it is the very possibility of change that is being rejected? Secondly, a denial of change entails a denial of empirical phenomena. But it is simply not the empirical phenomena that is rejected as false in the Way of Opinion. And a simple denial of empirical phenomena seems to go against the language of an “aimless eye”, “wandering minds”, empirical guides, and roads of inquiry, which all suggest that the problem is getting beyond experience. But could the point of the third road/Way of Opinion just be to show that cosmology is a red herring; instead of examining the concept of change itself, philosophers are merely wasting their time extending it? This would still fit with the language of wandering, aimlessness, and misguided guides.

But the fit is far from neat. Firstly, we have seen that there is a straightforward way to interpret (126.4-5a) – a passage which has perplexed Parmenidean scholars for some time. This interpretation, however, implies that a correct cosmology is possible; cosmology presupposes the empirical phenomena – cosmologies are just attempts to determine the origins and explanations of certain phenomena; and empirical phenomena presupposes change. Secondly, denouncing all cosmology as a red herring still provides little reason to actually spell out a particular detailed cosmology, let alone insist that it be learnt. And it provides no explanation as to why Parmenides bothered to invent his own cosmology. But, as we have seen, this all makes perfect sense if Parmenides is attempting to point out the fundamental error in the way previous cosmologies have been constructed. Thirdly, I have suggested above that the acceptance of change is the essential feature of the error referred to in (125). However, this passage does characterise the error as being a basis for a cosmology; yet if the error where the belief in change itself, it would be a basis for ignorance in far more than just cosmology; consequently, this focus on it as the basic flaw in cosmology would be misleading to say the least. Fourthly, although wandering minds, and the idea of aimlessness and misguided guides generally, make sense in reference to cosmology as a red herring, it is not so clear what the point of an aimless eye or an empirical guide is. If there is no change, then our
senses are just wrong; the idea that they might also misguide philosophers in their scientific inquiries is then superfluous to say the least.

So, in conclusion, the third road/Way of Opinion gives us the following picture. The subject matter of the third road of inquiry is science. It is only philosophers that go any distance down this road, but they are led down it by adhering to certain empirical habits adopted by all mortals (except the Eleatics). These empirical habits seem to derive principally from an adherence to the notion of change. Philosophers habitually transfer the constant change found in empirical phenomena to the basic principle on which their cosmology is built. Their eyes and minds wander from what they see directly to inquiry on the unseen explanations of things, without checking their habits of thought against reason. Consequently, they are ignorant of scientific matters, of anything beyond the direct experiences to which they instinctively tie themselves.

All this tells us about scepticism is that Parmenides is not a sceptic (S), since his criticism of the senses is limited to scientific inquiry. But his criticism is not simply that the senses cannot provide knowledge on scientific matters. It is more specific: he is critical of the transferral of one aspect of sensory experience to the fundamental principle of cosmology. This still allows the possibility that other aspects of sensory experience may be informative on scientific matters; and even change could play a role once the cosmology moves beyond the fundamental principle. Consequently, it is not clear what we should make of the conclusion that a correct cosmology is possible. If Parmenides simply denied that the senses could provide any knowledge of cosmology, this would mean that the correct cosmology would be a product of reason; and since cosmologies are theories of everything, rationalism (R) would follow. But since the senses are not rejected out right, the possibility remains that it is necessary to use reason and the senses together in the construction of the correct cosmology; and this would mean Parmenides is neither a rationalist (R) nor a sceptic (S).

THE MIXTURE OF THE MUCH-WANDERING LIMBS

Before I turn to the Way of Truth, there is one particular fragment from the Way of Opinion that we should examine:

For as on each occasion the mixture of the much wandering limbs is,45

45 Some mss. have ἐκαστὸς each man instead of ἐκάστοτε on each occasion (Tarán: 1965, app. p. 168). If ἐκαστὸς were adopted, it would be the subject; the mss. κρῶσις mixture could then be retained as object – i.e. ‘as each man has the mixture of his much wandering limbs’ (Guthrie: 1965, p. 67). But in favour of ἐκάστοτε, most mss. have it, and a corruption of ἐκάστοτε to ἐκαστότε is more likely than the reverse (Verdenius: 1964, p. 6). πολυκάμπτως much wandering is from Theophrastus; Aristotle (Met. 1009b21) has πολυκάμπτως with many curves, much bent (Tarán: 1965, app. p. 168). The only way I see to make sense of πολυκάμπτως is to suppose that it adds nothing (this seems to be Loenen’s (1959, pp. 54-5) position). This tells against it but far from conclusively; it may have been added simply for metrical purposes. Although I have adopted ἐκαστότε and πολυκάμπτως in my translation, I believe the alternatives, especially ἐκαστὸς are still quite plausible. A significant difference in meaning would only occur if both ἐκαστὸς and πολυκάμπτως were adopted – this would eliminate any reference to variability.
so does mind stand to men. For the nature of the limbs
is the very same thing that thinks
for each and every man. For the full is the mind
(127: Theo. Senses 3 (B16)).

This has often been interpreted as having epistemological significance; and it
does seem to tell us something about the πλακτός νός wandering mind
of (124.4a). It is argued that the κράσις mixture is of light and night, since we
are told that all things consist of light and night only (Simp. Phys. 180.9-12
(B9)) (eg. Guthrie: 1965, pp. 68-9; Verdenius: 1964, pp. 6-7). The point of the
first sentence (127.1-2a), then, is to say that human minds correspond to this
mixture of light and night (Verdenius: 1964, p. 18). Verdenius translates the
second sentence (127.2b-4a) as ‘for, with all mortals, the nature of the μέλεα
limbs is the same as what it knows’ (p. 15) – that is, “the ... Darkness within
us enables us to know dark things only”, and the light, light things (p. 17). In
fact, he argues that κράσις μελέων refers to the light and night in
everything, not just the light and night in people. So the full import of (127)
is that “each of the μέλεα [viz forms] is identical with the knowledge it
possesses about itself” (p. 18; cf. Vlastos: 1946, pp. 66-7): the last sentence
(127.4b), he argues, states that the synthesis of the μέλεα – denoted by τὸ
πλέων the full – is identical with the synthesis of their knowledge – denoted
by νόημα the mind.

I agree that (127.2b-4a) reads naturally as an identity statement, giving
us ‘the nature of the μέλεα = that which thinks – the mind – for each and
every man’. Further, I agree that if the cosmology of the Way of Opinion is
consistent, and (127) is indeed in the Way of Opinion (see below), the κράσις
is a mixture of light and night. However, it is not necessary to interpret
μέλεα as referring to all corporeal bodies, as Verdenius does (pp. 6-7).46 But,
equally, it cannot be taken as literally referring to just the limbs of people. So
it is best interpreted as referring to the whole of the human body.47 Now,
the φύσις nature of the limbs I take to be this κράσις of light and night
simply because this is the nature of all things (Simp. Phys. 180.9-12 (B9)). So
the identity becomes ‘the mixture of light and night = the mind, for all
people’ but it is the mixture within people that thinks; it is not an
identification of the thinking and perceiving subject with the external
object perceived or thought about, rather it is an identification of the thinking
subject with an internal physical process. The effect of the κράσις on our
thoughts, as opposed to our perceptions, is remarked on in Theophrastus’
commentary on (127): “Memory and forgetfulness derive from these things
through their blending” (Senses 4 (A46); tB) (presumably, the light in us
causing memory, night causing forgetfulness).

For precisely this reason, Loenen (p. 54) prefers both ἐκαστὸς and πολυκάμπτος. His main
reason (but see also note 51) for wanting to eliminate any reference to variability is that it “is
contrary to Parmenides’ fundamental idea that stable, immutable knowledge of an immutable
reality is possible”. But I simply do not accept that Parmenides’ knowledge of being is
immutable (see notes 3 and 5).

46 The genitive μελέων is simply possessive, hence κράσις μελέων could be paraphrased as
‘the limbs’ mixture of light and night’.

47 For which there was no common term in Parmenides’ time (Guthrie: 1965, p. 67).
Furthermore, the best sense that can be made of ἐκάστοτε on each occasion is that our thoughts, at any given time, are identified with the particular mixture, or ratio, at that time (and τὸ πλέον the full designates this ratio), so if the same ratio of the forms occurs in two different people, they have the same thought at that time (cf. Tarán: 1965, pp. 253, 258). To take the identity of (127) to be analytic would be to seriously over-interpret the text. The identity is material. It could still entail an identity theory of the mind, but it more likely involves an underlying causal connection. That is, a given ratio of light and darkness \( r \) causes a given thought \( t \), such that a person thinks \( t \) if and only if \( r \) occurs to cause him to think \( t \).

On this interpretation the idea that like is known or perceived by like is not explicitly stated, since (127) does not refer to any external light or night. But it is still probable that the amount of light and night within people is affected by that outside, and that the degree inside then determines our thought and perception of that outside. The idea that the internal \( ράσις \) is affected by the external light and night is suggested by πολυπλάγκτος much-wandering, which in Homer (Od. 17.511) alludes to the individual’s change of environment, which, it is further implied, “lead to changes in his physical constitution and thereby in his mentality” (Coxon: 1986, p. 248). Furthermore, Theophrastus’ comments on (127) imply that like is known, or at least perceived, by like (cf. Tarán: 1965, pp. 260-1; Verdenius: 1964, p. 19). He states that corpses perceive dark (and cold and silence – these being conceived of as dark things), but not light (nor heat nor sound) “because of the deficiency of fire” (Senses 4 (A46); tB).

It is also argued that superior knowledge, knowledge of being, results from a greater proportion of light in the \( ρασίς \). There is no evidence of this in (127), but the thesis is clearly stated in Theophrastus’ commentary on (127): “Thought becomes ... better and purer when it depends on the hot” (Senses 3 (A46); tB). However, this commentary was probably derived from the Proem. The daughters of the sun, who leave the house of Night for the light to escort Parmenides (Sext. M 7.3 (Bl.8-11)), can easily be read as symbolising the element of light in Parmenides’ mind (eg. Verdenius: 1964, pp. 11-2). It is, then, a preponderance of light in Parmenides that extricates him from the rest of humanity on the physiological level outlined in (127).51

Unfortunately, any interpretation based on the symbolism of the

48 Even this may be an over interpretation. Parmenides did not have the logical apparatus to readily see that an identity claim between specific thoughts and specific ratios of light and darkness implies a one-to-one correspondence between these thoughts and ratios. That is, he may have only meant that \( r \) causes \( t \), in that a person thinks \( t \) if \( r \) occurs.

49 On death this breaks down and only night is formed in the body (see below).

50 Verdenius’ (1964, pp. 19-20) further thesis that each form knows itself, and that this occurs throughout the cosmos, is, he argues, suggested by Theophrastus’ conclusion that “everything which exists has some knowledge” (4 (A46); tB). This, along with the remarks on corpses, certainly extends the capacity to know beyond the living human; but this panpsychic thesis does not mean that the knower is identical to what it knows.

51 The above interpretation does not require the amount of light and night in people to be completely determined by that outside: the proportion of light to night in people being equal to the proportion outside, say (making each person equally as knowledgeable as every other person in the same place at the same time). There could be some kind of persistent preponderance of light in those with superior knowledge, and night in the foolish masses – but both still having their proportion of light reduced at night time, for example. There is
Proem is invariably speculative if we attempt to extract from it anything we are not told elsewhere (cf. Owens: 1979, pp. 20-5). If we were to accept the above reading of the Proem, we would have to add that physiological progress corresponds to methodological progress: the increased light manifests itself in a better method, based in reason, whereas the rest of humanity are left ωμηξανinear means (124.3) (cf. Vlastos: 1946, esp. pp. 71-4). But once we add this, it seems that the journey to the light could just as easily symbolise this methodological development alone, rather than the actual increase of light within Parmenides. In short, the idea that (127) says anything about knowledge of being is speculative to say the least.

The above interpretation assumes that (127) is in the Way of Opinion, but this assumption has been questioned. Hershbell (1970, pp. 1-23) argues that it is in the Way of Truth. Neither of the primary sources (Theo. Senses 3-4 (A46); Arist. Met. 1009b20-4) explicitly state that (127) belongs to the Way of Opinion. This, however, seems to be implied by (i) both saying that it has to do with Parmenides' equating thought and perception - given his criticism of the senses (even the weakest interpretation of that criticism), such an equation could not be part of the Way of Truth. It is also implied by (ii) Theophrastus' claim that "knowledge depends on ... the hot or the cold" (Senses 3 (A46); B) - which could refer to the forms of light and night, but not to anything in the Way of Truth. But these may both be misinterpretations, or at least over-interpretations, of (127) by Aristotle and Theophrastus (Hershbell, pp. 3-5).

But can (127) be interpreted in a way that is consistent with the Way of Truth? Firstly, Hershbell points out that κράσις can mean not mixture but union (p. 11); and φύσις could mean "mental constitution, or that which governs a thing's behaviour" - a sense which allows the identification of φύσις μελέων with νόος (pp. 11-2). Hershbell argues that "any other interpretation of φύσις would seem at variance with ... the rest of Parmenides' thought where what apprehends or thinks is always νόος, not σώμα" (p. 12). But this argument seems to beg the question: if (127) is in the Way of Opinion and this is false, Parmenides may be pointing out the error of attributing thought to σώμα body. But if we give Hershbell his preferred senses of κράσις and φύσις, the sense of (127) is, he argues, that "men have
similar minds just as they have similar bodies, indeed it being the mind
that governs the body. That men's minds are similar is shown from the fact
that they think the same object" – i.e. (τὸ) ἐὸν what is, which is full (τὸ ... πλέον in (127.4b); ἐμπλέον in (136.3)) (p. 13; cf. Loenen: 1959, pp. 53-5). So the
essential point is that in spite of mortals wandering two headed etc., being
is still at the base of all thought (p. 15).

The basic problem with Hershbell's account is that he wants (127) to
be principally about the relation between mind and being, and the reference
to bodies, the µέλεα, only gets in the way. By having µέλεα compared only to
other µέλεα, this reference to bodies can be made superfluous. However,
(127.1-2a) simply does not read as saying anything about the similarity of
human bodies to one another. The similarity is just between the body of
each person, on each occasion, and the mind of the same person, on the
same occasion. In short, it seems that the most natural reading of (127)
puts it in the Way of Opinion.

But I have argued that the Way of Opinion is false, so (127) must also
be false. If this is so, can we gain anything from (127) about Parmenides' epistemology? Well, a strictly false story can still have a message. And a
message can be extracted from (127) that fits well with the criticisms of
Parmenides' predecessors found so far in the third road/Way of Opinion. I
have also argued that the Way of Opinion is not a literal account of any of
Parmenides' predecessors: none of his predecessors believed that light and
night were the basic elements of the world, nor did any develop a theory of
thought involving light and night. The essential point is that the theory somehow restricts thought to the immediate environment. The cosmologies that philosophers have developed as a result of their empirical
habits, as exemplified by the Way of Opinion, in one way or another, entail
an account of thought that restrains mortals to their direct experiences:
thought is a product of one's immediate environment. So theories about
things beyond direct experience that are based, however, in direct experience
lead to an account of thought that negates the possibility of getting beyond
direct experience! Furthermore, although the account of thought in (127)
is false – the immediate environment does not really determine our
thoughts – Parmenides' predecessors behaved as if it were true; they allowed

54Certainly, (127.1-2a) is grammatically a comparison. Both Hershbell (p. 11) and Loenen
(1959, p. 60) state without argument that if the point of the comparison is not simply to say
that the mind is like, or the same as, the body, then the point is to compare the similarity of
people's bodies with the similarity of their minds. I just do not see this. What the first clause
of (127.1-2a) states is a relation between each person and his body (this is, of course, clearer if
we read έκαστος, not έκάστοτε (see note 45)), and the second clause states a relationship
between each person and his mind. So if the comparison is not just between body and mind
simpliciter, it is between these two relationships. And, of course, the mind will be related to
a person in the same way as is the body if the mind is identified with the body.

55This point would be strengthened by a deterministic reading of (127) – if the internal κρόςεις
were completely determined by the external light and night and not even partially by the
person's will (cf. Vlastos: 1946, pp. 69-70). However, the above interpretation need not imply
this (see note 50). But the restriction to direct experience does not require this deterministic
reading (the individual's will might affect the details of his scientific theories, but it could
not break the connection to direct experience, reason alone can do this).
direct experience, the immediate environment, to carry them along in their inquiries, leading them down the wrong road 'helpless and astonished'.

**CONCLUSION**

So Parmenides' account of the wrong path of inquiry most likely does not denounce cosmology, or science, as an unworthy subject of inquiry: he does not believe that it is either unimportant or unknowable. Rather he is denouncing the particular cosmologies developed by his predecessors. Their error, firstly, was that they failed to apply reason in developing their cosmologies. Yet reason is necessary in this development. This does not make Parmenides even a weak rationalist (r) since this requires that reason is sufficient to determine substantial truths. In the absence of reason all of Parmenides' predecessors made the mistake of transferring the notion of change, that is ingrained in nearly all empirical experience, to the fundamental principle on which their cosmologies were based. This does not make Parmenides even a sceptic (s) since it does not imply that the senses can be of no use at all in cosmology. All we can definitely conclude, at this stage, is that Parmenides is not a strong sceptic (S). However, there are reasons to suppose that in the Way of Truth Parmenides argues that reality is completely at odds with what we see: making him an uncompromising sceptic (S). So we must now examine the Way of Truth, in the next chapter, to see if even this conclusion about Parmenidean epistemology can be sustained.

---

56 Essentially the same idea is that unless enlightened by the goddess, people's understanding is determined by their bodily constitution (Robinson: 1975, pp. 631-2) (only I would say that their understanding is determined as if by bodily constitution). Robinson and Mourelatos (1970, pp. 256-8) suggest that a further point can be extracted from (127) even though it is located in the false (or at least rejected) Way of Opinion: like Hershbell, they think τὸ ... πλέον is an allusion back to ἐμπλέον (136.3) and πάμπον πελένα altogether be (Simp. Phys. 145.11 (B8.11)) in the Way of Truth. So, even when people's understanding is determined [as if] by their bodily constitution, the true referent of their (relevant) statements is still (τὸ) ἐὼν what is (= τὸ πλέον).
Chapter 6

PARMENIDES II: THE UNDERLYING TRUTH, PARMENIDES' WAY

It is now time to examine the Way of Truth and to see what this implies about Parmenidean epistemology. We must proceed here unaided by any explicit epistemological statements; but much of epistemological significance has been read into the Way of Truth, so an examination of Parmenidean epistemology would be incomplete without trying to determine just what epistemological consequences should be drawn from the metaphysics of the Way of Truth. I argue that in the initial argument of this Way, which introduces the first and second roads, Parmenides disproves the road of OUK ἐστιν it is not, the second road, rather than OUK ἐστιν itself; and that ἐστιν it is and the denial of OUK ἐστιν are assumed in the argument on a priori grounds. ἐστιν, I argue, cashes out as 'there exists'; and the first road, the road of 'there exists', is appropriate essentially because 'there exists' implies only true thoughts about reality. Since these true thoughts are derived by reason alone from a priori premises, Parmenides, it would seem, was at least a rationalist (r). But we must examine the actual conclusions of his reasoning to see whether everything about reality might be derivable by this reasoning. It would seem that Parmenidean being is physical reality. Given this, we should conclude scepticism (S) if being is (i) changeless, (ii) spatially homogenous, or (iii) without qualitative properties: change, differentiation, and qualitative properties are features of every sensory experience, so every sensory experience would be contradicted if physical reality were either (i), (ii) or (iii). This, of course, would mean that the Way of Truth contradicts the conclusion of the previous chapter that Parmenides was not a sceptic (S). However, returning to Parmenides' rationalism, since (i), (ii) or (iii) would be a significant conclusion derived by reason, the attribution of any one of these to physical reality would also be sufficient to make Parmenides a rationalist (r). But for Parmenides to be a rationalist (R), physical reality must be (i), (ii) and (iii), and it must also be (iv) shapeless. Still there are reasons to attribute (i) – (iv) to Parmenidean being. Yet even if we accept that being is (i) – (iv), we can still avoid the contradictory conclusion of scepticism (S). Put simply, if being is taken to refer only to the substratum of physical reality, it turns out that this is fully consistent with what we shall determine about the Way of Truth, without implying scepticism (S). Since this reading of Parmenides gives us a story
consistent with all elements of his poem, it is to be preferred. This reading still means that Parmenides was a rationalist (r), but it is unlikely that he was a rationalist (R). As for his scepticism, it seems unlikely that he was even a sceptic (s).

TO THINK AND TO BE ARE THE SAME

It seems fairly clear that the argument that constitutes the Way of Truth begins in the following:

Come, I will tell you, and listen to what I say so as to preserve1 it. The only roads of inquiry2 there are to think are:
one, that it is and cannot3 not be,
it is a path of Persuasion (for it accompanies truth);
the other, that it is not and must not be,
this I say is truly a path devoid of knowledge
for you could neither know what is not (for it is not achievable),
nor could you speak of it
(128: Proc. Tim. 1.345.18-27 (B2)).4

1κοιμισθείτε so as to preserve has the alternative meaning of pay heed to. Although I do not favour this sense in translation, it is a perfectly reasonable alternative, as in Tarán (1965): "And do you pay attention to the account when you have heard it". But whether or not we use this sense in translation, the opposition of this meaning to ὅσκοτος in the sense of heedless could be intentional. If ὅσκοτος were attributed to the ὅκουν εἶναι, not the ὑμαῖεν, in (123.4), this opposition could entail something of significance (e.g. the wrong road is based on an unwillingness to listen to, or incapacity to comprehend, sound argument; while the right road is based on just the opposite); but, as it stands, I cannot see that it is anything more than a poetic resonance.

2Too much is sometimes made of the description of the propositions ἐστὶν it is and οὐκ ἐστὶν it is not as "roads of inquiry". How, it is asked, could a single proposition constitute a "road of inquiry"? Given what follows in Parmenides' poem, it is natural to take 'road of inquiry' to refer to a line of reasoning or the inquiry that culminates in such a line of reasoning; and one proposition can hardly constitute a complete line of reasoning. Mourelatos (1970, esp. pp. 67-8) uses this to support the interpretation of ἐστὶν as a sentence frame (specifically a sentence frame for a statement of speculative predication): the "road of inquiry" is, then, the process of filling in the intentionally missing subject and predicate. So the difficulty is solved by denying that ἐστὶν is a single proposition. Loenen (1959, pp. 85-6) solves the problem by supposing that one aspect of the meaning of ὅξος road must be the thesis arrived at by the inquiry. But I do not see why 'road of inquiry' can't just mean essentially 'line of reasoning', and why this line of reasoning can't be marked by (but not identified with) either its starting point or conclusion, which could be a single proposition.

3The fact that lines 3 and 5 are undoubtedly opposed makes the fact that χρείαν must occurs in line 5 quite conclusive evidence for taking the second ἐστὶν in line 3 as ἐστὶν it is possible (cf. Verdenius: 1964, p. 32): making οὐκ ἐστὶ cannot. Coxon's (1986, p. 174) objection to this is that ἐστὶ γὰρ εἶπα for it is is to be (130.1b) is a reformulation of οὐκ ἐστὶ μὴ εἶπα cannot not be, and reading ἐστὶ in (130.1b) as it is possible would, he claims, destroy the argument of (130.1-2a). However, the parallel between lines 3 and 5 is immediately apparent, that between line 3 and (130.1b) is speculative; yet the reasoning for and against reading it is possible is essentially the same – i.e. in both arguments the sense of line 3 is being based on linguistic similarities with another phrase.

4Parmenides only refers to two roads in this fragment. Cornford (1933, p. 99) argues that this apparent exclusion of the third road from the roads that can be thought is only apparent. The
The following fragment (129) almost certainly follows on immediately after (128); the next (130) may well follow on immediately after this:

For to think and to be are the same (129: Plot. 5.1.8 (B3)).

It is necessary that speech and thought are what is: for it is [is] to be, and it is not [is] nothing. These things I urge you to speak of (130: Simp. Phys. 86.27-8 + 117.5 (B6.1-2)).5

Certain parts of the argument presented in (128) – (130) are then restated, reformulated, and/or elaborated, later in the Way of Truth:

Decision about these matters lies in this:
it is or it is not. Now, it has been decided, as is necessary, to let one road be unthought and unnamed (for it is not a true road), and (so) for the other to be and to be real (131: Simp. Phys. 145.16-19 (B8.15b-18)).

'From what is not' I will not allow you to say or think, for it is not sayable nor thinkable that it is not (132: Simp. Phys. 145.7-9 (B8.7b-9a)).

goddess does not say that there are only two roads that can be thought; she in fact intends to introduce all three here, he argues, but "this fact is disguised by the fragmentary condition of the text". The problem with this is the radical change in style with which Parmenides must then be seen to introduce the third road: we do not get 'one ... another ... and another ...' introducing three carefully balanced lines in rapid succession, but "one ... the other ... [introducing two carefully balanced lines in rapid succession, then some discussion of the second road, then] for I restrain you from this first [false] road of inquiry, but also from this ...". Consequently, I do think that this fragment lists all the roads that can be thought.

Loenen (1959, p. 88) accepts this exclusion of the third road from the roads that can be thought. He then goes on to argue that since there are only two roads of inquiry that can be thought, and only the second is a false road, any other false road mentioned "must somehow in the last resort be reducible" to this false second road. But surely it is only if there is another false road of inquiry that can be thought that this must be reducible to the second road. Now, there are two false roads mentioned – the second and third roads; we are not told that the third road can be thought; so we have no reason to suppose that it must be reducible to the second road, but every reason to suppose that it cannot even prima facie be thought. The key point is that we cannot simply assume that Parmenides is using οὐδότιος unthought in (128.2) in a non-restrictive way just because a false road is there said to be thinkable. This road is later dismissed as ἄνωντος unthought in (131.3) and similarly in (132). In these passages there is certainly a restrictive sense of thinking involved. But it could be that there is a more restrictive sense of thinking in (131.3) and (132) than (128.2), rather than that there is a restrictive sense in (131.3) and (132) and a non-restrictive sense in (128.2). Indeed, it just is the former contrast that is suggested by the absence of a road, explicitly introduced later as a distinct road, from the roads that can be thought (cf. Coxon: 1986, p. 183).

5 This passage immediately precedes (124).
Method and epistemology in the early Presocratics

To think and the thought that it is are the same\textsuperscript{6} for without what is, in which it has been expressed, you will not find thinking

\textit{(133: Simp. Phys. 146.7-9 (B8.34-6a)).}

**eliminate the negative**

The argument in (128) – (133) is principally an argument against the second road of inquiry (128.5). The reason for rejecting this road is first given in (128.7-8), and this is presumably repeated in different words in (131.2b-3) and (132). In each of these passages the second road is rejected because what is not has a pair of negative properties: in (128.7-8) we can neither γιγνώσκω know nor φροτεω speak of it; in (132) we are not allowed to νοεω think nor φημι say it, for it is neither νοητος thinkable nor φατ怒ς sayable; and in (131.2b-3) the road is ἀνόητος unthought and ἀνώνυμος unnamed. Presumably, the second element of each pair is dependent on the first – that is, what is not cannot be spoken of or named because we can hardly talk about what we cannot know or think. But what is meant by the knowledge or thought terms? It is argued that, since νοεω etc. are associated with words of speaking and naming, νοεω etc. are on a logical par with these words; but these words of speaking do not imply truth; so neither do νοεω etc. (Barnes: 1979, pp. 158-9). However, it makes as much sense to claim that one cannot speak of what one does not know as it does to claim that one cannot speak of what one does not think. The first claim, unlike the second, would be palpably false unless it were given a prescriptive sense (something like ‘one should not speak of what one does not know’); but the point is that there is some sense in which it is intelligible to claim that one cannot speak of what one does not know (or perceive or the like). Conversely, the parallel between νοεω and γιγνώσκω does suggest that νοεω means know, perceive or the like (and that νοητος means knowable or perceivable) in these instances (cf. Verdenius: 1964, pp. 10, 35). The closest overlap of meaning between γιγνώσκω and νοεω is that of perceive or discern and these concepts do usually imply the truth or reality of what is perceived or discerned (see ch. 1).

In both Homer and Heraclitus γιγνώσκω and νοεω are typically connected with visual perception. And the claim that what does exist is visually perceivable, but what does not exist is not, makes perfect sense. So the possibility that Parmenides began his argument from an empirical premise should be taken seriously. Certainly the conclusions of the Way of Truth are derived by reason from ἐστιν it is and the denial of ὦν ἐστιν it is not, but that doesn’t mean these premises to the rational argument could not be based on an empirical demonstration. One problem with taking νοεω etc. to refer to visual perception, that applies to any interpretation of the initial argument, is that we are also told that the second road in some sense is νοεω to think (128.2). If we take νοεω etc. to mean ‘think truly’ in (128.7-8), (131.2b-3) and (132), then we can take νοεω to have the weaker sense of

\textsuperscript{6}The similarity of construction in the Greek between this line and (129) suggests, but does not necessitate, a similarity of construction in translation – ie. ‘to think and ... are the same’ (cf. Coxon: 1986, p. 209).
‘think’ in (128.2); but there is no corresponding weaker sense of ‘perceive’. So the ‘perception’ is most likely intellectual – νοεῖω etc. essentially mean ‘think truly’; but this is far from conclusive, and cannot simply be assumed. The following interpretation of the initial argument presents a more decisive difficulty for an empirical justification of ἔστιν over οὐκ ἔστιν, as we shall see: essentially, it is not οὐκ ἔστιν or (τὸ) μὴ ἔσων what is not that is being disproven because it can’t be ‘perceived’, but the second road that is based on these; the denial of οὐκ ἔστιν is simply assumed (130.2a).

So the second road is rejected because it, or what is not, cannot be truly thought. But why not? The answer to this is given firstly in (129), possibly repeated in modal terms in (130.1a), and expanded on in (133). That is, what is not is unthinkable because of the relationship between thinking and being. The literal translation of (129) seems to be a statement of idealism: identifying thought or mind with reality. However, against this interpretation, we must note that the expressions in all the above passages look very much like variations on the same theme, and there is no reason to suppose that this is not the case. Specifically, (133.1) is not an expression of idealism: here being is identified with the content of our thoughts, not with thought or mind themselves. So the same relationship is probably involved in (129) (and (130.1a)), only there it is less clearly expressed.8

I have translated οὐκέκα in (133.1) as that; and, so translated, it must depend on νόημα thought.9 The most natural reading of this translation would be that thinking is identical to thinking the proposition ἔστιν it is – that is, thinking is restricted to the one thought ἔστιν. But the attribution of such an extreme claim to Parmenides is not necessary: (133.1) could also mean that what can be truly thought implies, and/or is implied by, the thought that ἔστιν (cf. Barnes: 1979, p. 207). ὁ αὐτὸς the same in both (129) and (133.1) could mean ‘necessarily connected’ (Robinson: 1975, p. 626);10 it does not necessarily denote strict identification. That is, the first road is to be accepted as implying true propositions. It is easy to see how the road of what is not would be unthinkable on this interpretation assuming ἔστιν = (τὸ) ἔσων what is: if all (relevant) true thoughts are derived from ἔστιν, then all (relevant) thoughts derived from what is not would be false – not truly

7Mourelos (1970, pp. 68-70) adds that in Parmenides νοεῖω begins to assume the sense of reason, but not so much in a ratiocinative sense as that of direct apprehension of truth or reality (cf. Fritz: 1974, p. 45; and see below).

8Vlastos (1953/2, p. 168 n. 1) criticises this approach, claiming that “what Parmenides says in several other passages need not be what he is saying in [(129)]”. Surely he is right that these similar passages need not be saying the same thing differently, but this is still the most plausible hypothesis, certainly in the absence of any positive argument against it. His assertion that (133.1) is also “most probably construed as asserting the identity of thinking and being”, however, is simply false.

9Some commentators attempt to supply that on which οὐκέκα, translated as that, depends. For example, Verdenius (1964, p. 40) argues that it means “knowing is the same as (the fact) that a thought exists”. Tarán (1965, pp. 122-3) goes so far as to claim that for οὐκέκα to mean that it is “almost inevitable” that it depends on some supplied verb of thinking. But since the line makes perfect sense without supplying anything, such tampering with the text is quite unjustified.

10Robinson argues that this is the same as Heraclitus’ use of εἰς καί ὁ αὐτὸς one and the same. But Heraclitus uses εἰς καί ὁ αὐτός simply for identification. A better comparison is with Heraclitus’ use of just εἷς one (see ch. 4 esp. note 90).
thinkable. That is, the second road is to be rejected as implying false propositions (131.3-4a). The rejection of the third road could then be because even if we assume non-being only in part we still reach false conclusions: the idea being that attributing change to the fundamental principle entails some non-being.

However, the translation of ouvEKa as that has been disputed. It can also mean on account of which; and if so translated, ouvEKEV strposn v6mo the thought that it is becomes ‘that on account of which it is thought’. Comparison with (130.1a) suggests that on account of which it is thought is (r6) 6dov;11 so, again, the identification is between thought and being, but we are given the additional information that thought is on account of being. This translation makes perfect sense of (133.1) in itself,12 but I believe the broader context favours the interpretation that true thoughts are implied by 6dov, and consequently the translation of ouvEKa as that. Firstly, this interpretation restates the apparent conclusion of (128) and (131) that the true road of inquiry is based in 6dov (cf. Guthrie: 1965, p. 40). Secondly, the structure of the argument in (133) + (137)13 has (133.1) as the explanation of (137.3b-6); and ‘what can be truly thought implies being’ does explain why ‘becoming and perishing etc.’, which have been shown to imply non-being, are mere names – that is, can’t be truly thought (cf. Barnes: 1979, pp. 206-7; and see below). Thirdly, this of course fits with the assertion of a necessary connection between thought/speech and what is in (130.1a).14

only one road is left

On this interpretation, it is not the proposition ouK 6dov itself that is being argued against, but the whole road of inquiry that begins with it, that is implied by it: what is not is unthinkable principally because it does not imply true thoughts. (The idea that the problem is not with ouK 6dov or (r6) 6dov themselves, but their failure to lead to a desirable conclusion, is already suggested by the motif of the 6d6c; road, and by comparison with the third road where the problem is getting from empirical experience to appropriate cosmological principles. It is another thing again, however, to cash this ‘leading astray’ out as ‘false implication’. The validity of this move relies entirely on the validity of my interpretation of (133.1) as saying that

11As does the location of (133.1) in Simp. Phys. 145.2-146.22 (B8.2-49), which is a systematic account of the various features of (r6) 6dov (Mourelatos: 1970, p. 165).
12This translation has been interpreted as meaning inter alia that what is is the goal of thought (Mourelatos: 1970, pp. 167-9) or that what is is the cause of thought (Coxon: 1986, p. 209). (Both of these relationships, incidentally, require that being is distinct from thinking, so also contradict the idealist interpretation.)
13(133) – B8.34-6a – immediately precedes (137) – B8.36b-41.
14A popular interpretation of (129), (130.1a), and (133) is that Parmenides is saying that thoughts must have a reference. This could mean either that the reference of meaningful thoughts must exist (eg, Gallop: 1979, pp. 69-70; Owen: 1960, pp. 94-5; Burnet: 1945, p. 180) or that the reference of true thoughts, or what is known, must exist (Robinson: 1975, p. 626; Kahn: 1968, pp. 711-2). This explains why what is not is unthinkable: whether it is meaningful thoughts, true thought or knowledge that requires a reference to something that exists; what is not, what does not exist, necessarily does not satisfy this requirement. However, these points of broader context – specifically, the first and second points – also lead me to favour the above interpretation over this.
The underlying truth, Parmenides' Way

only ἔστιν implies true thoughts, which I have attempted to justify above.) Indeed, that οὐκ ἔστιν is false – there is no non-being – and ἔστιν is true – there is being – appear to be the assumptions upon which the denial of the second road is ultimately based (130.1b-2a) – that is, the argument against this second road presupposes ἔστιν and the denial of οὐκ ἔστιν. Furthermore, (129), (130.1a) and (133) are essentially just the affirmation of the first road – that it leads to true thoughts – so this too could simply be presupposed. However, ἔστιν and the denial of οὐκ ἔστιν are presented as a reason clause for one of the phrases expressing the validity of the first road (130.1-2a): suggesting that the validity of the first road follows from the truth of ἔστιν and falsity of οὐκ ἔστιν. Parmenides may have assumed that a true premise will only have true implications. Whether the validity of the first road is simply assumed or derived from the truth of ἔστιν, the second road is then disproven by demonstrating, or rather merely stating, its incompatibility with the first road. And presumably the third road is also incompatible with the first.

Contrary to this, many commentators interpret (128) – (133) as containing a more or less elaborate argument for accepting the proposition ἔστιν itself. The argument invariably demonstrates that οὐκ ἔστιν is false, so ἔστιν is true since these two propositions exhaust the possibilities ((128.2) and (131.1-2a)) – that is, it is argued that Parmenides proceeds by disjunctive syllogism (eg. Barnes: 1979, pp. 165-6; Verdenius: 1964, pp. 31-41). However, most points made in support of this interpretation fit my interpretation equally well. In particular, it has been pointed out that (123.6b), (124.1-2a) and (131) all imply a process of elimination (Furley: 1989/2, p. 34; /3, p. 44). But the above interpretation still implies that the second and third roads are rejected (124.1-2a), and that only the first road remains (123.6b). (131), however, seems to present all the elements of a disjunctive syllogism: the options are presented in a disjunction; one disjunct is dismissed; and the other is consequently accepted. But it is also possible to fit my interpretation with (131). Firstly, the disjunction is exclusive and denotes the mutual incompatibility (but not the exhaustion) of the alternatives (thus a decision is required). Secondly, ἦσυχος in (131.4) could well be redundant.17 18

So the standard textual evidence for the disjunctive syllogism interpretation presents equally good evidence for my interpretation. My interpretation, however, has the following advantages. Firstly, ἔστιν and the denial of οὐκ ἔστιν are presented in a reason clause at the end of the initial argument; therefore, they are most naturally read as assumptions of the

15Typically it is just the first two roads that are seen to exhaust the possibilities, although a disjunctive syllogism interpretation is just as plausible if roads one to three are exhaustive. These first two roads are usually seen to be exhaustive due to the law of contradiction (Coxon: 1986, pp. 178, 180-1; Kahn: 1968, pp. 707-8). But the propositions of (128.3,5) are not necessarily contradictories. In particular, the literal reading of the modal parts of (128.3,5), formally ¬φ-ψ and φ-ψ, respectively, does not give us contradictory statements – the contradictory of ¬φ-ψ being ¬φ-ψ, and the contradictory of φ-ψ being φ-ψ (cf. Lloyd: 1966, pp. 104-6).

16See notes 4 and 15.

17Coxon (1986, pp. 201-2) cites examples of this redundant use.

18See Lesher (1984, pp. 13-6) for further problems with a disjunctive syllogism interpretation.
argument, not the final and intermediate conclusions, respectively. Secondly, the second road parallels the third on my interpretation in that the focus is on the respective starting points leading us astray. Thirdly, this focus on leading astray is confirmed by the interpretation of (133.1) as affirming that only ἔστιν implies true thoughts, hence οὐ ἔστιν or (τὸ) η ἔόν do not.

what is?

Up till now I have assumed that (τὸ) ἔόν what is is the basis of the first road, and (τὸ) η ἔόν what is not is the basis of the second. But it is ἔστιν and οὐκ ἔστιν that are explicitly identified with the first and second roads, respectively, in (128.3, 5). In short, I have so far assumed that (τὸ) ἔόν = ἔστιν; or, more precisely, (τὸ) ἔόν denotes that which ἔστιν postulates, and likewise for (τὸ) η ἔόν and οὐκ ἔστιν. But is there any positive evidence for these relationships between (τὸ) ἔόν and ἔστιν, (τὸ) η ἔόν and οὐκ ἔστιν? Well, yes. In fact I believe that this relationship is unavoidable simply because verb and participle are used almost interchangeably: the decision to use ἔστιν rather than (τὸ) ἔόν, for example, seems to be based solely on the verb being a more manageable part of speech than the participle for the given phrase. This is evident in (133.1), where ἔστιν, not (τὸ) ἔόν, is used; and in (132.3), where οὐκ ἔστιν, not (τὸ) η ἔόν, is used. The choice between verb and participle is fairly arbitrary in (129) and (130.1a); but both of these passages denote the same relationship, so the use of the verb in (129) but the participle in (130.1a) is further evidence of the identification of ἔστιν and (τὸ) ἔόν. The shift from η ἔόν in (132.1) to οὐκ ἔστιν in (132.3), in particular, strongly implies the identification of (τὸ) η ἔόν and οὐκ ἔστιν.

But just what does (τὸ) ἔόν denote and ἔστιν postulate? Obviously, we must answer this question if we are to fully understand the initial argument. Furthermore, to determine the epistemological significance of the properties derived in the Way of Truth (which I will turn to shortly), we will need to know just what these properties are attributed to – that is, just what (τὸ) ἔόν refers to and ἔστιν postulates. To determine the meaning of ἔστιν in (128.3, 5) we need to know not only how it is being used, but whether it has an unexpressed subject, and if so what that subject is. The possible answers to these questions appear boundless: as soon as it seems that the possibilities have been exhausted one encounters yet another. But, as an initial restriction on the possibilities, we should adopt the principle that any proposed usage of ἔστιν should be standard Greek; and, at this early stage of the poem, no subject is to be supplied unless it is a common Greek idiom to leave the proposed subject understood; and the absence of any subject must result from a standard Greek application of the verb (cf. Tarán: 1965, p. 33; Verdenius: 1964, p. 31).19

This principle still allows a number of interpretations of ἔστιν. Firstly, it allows us to take ἔστιν as impersonal and existential, giving us ‘there

19 Such a requirement is simply rejected by Gallop (1979, pp. 73-4); he asserts that we need not “expect a poet always to write in such a way that his theme will be transparent at the outset, even to an audience of his own time who can read his entire work in one piece” (p. 74).
exists', since this is a common subjectless construction of the verb (Taran: 1965, pp. 36-7). Secondly, an indefinite subject such as ἢν whatsoever or πιν something could be supplied since "the omission of the indefinite pronoun as subject is widespread in epic and later Greek" (Coxon: 1986, p. 175). Indeed, Loenen (1959, pp. 12-3) argues that we do not have to supply an indefinite subject: he emends πιν in (128.3) to πιν something. And 'something', at least, makes sense with the existential use of ἕστιν. Thirdly, this principle allows us to take ἰλήθεια truth or reality as the subject of ἕστιν (Verdenius: 1964, p. 32; 1962, p. 237). This does not require the reader to supply a subject: it is supplied by a cross-referencing personal pronoun, which, again, need not be expressed in Greek. However, this option seems implausible: the first road ὑποδεικνύουσα ἰλήθεια; this implies that, although this road is connected to ἰλήθεια, it is still distinct from it. Yet another proposed use of ἕστιν is the veridical: ἕστιν means is so or is the case (Kahn: 1968, pp. 710-1). However, I believe Gallop (1979, pp. 66-7) is right that this use "seems to be of the wrong logical type to serve as the bearer of such attributes as
‘ungenerable’, ‘imperishable’ [etc.]” – these are features of a thing, not a fact (but cf. Kahn: 1968, pp. 716-20).23

So we are left with two possible senses of ἔστιν: (i) ‘something exists’, and (ii) ‘there exists’. However, the opposition of the Way of Truth to the Way of Opinion does suggest that the Way of Truth is also about extensive scientific matters.24 Yet the proposition that some thing exists – maybe a chair, maybe a bicycle – hardly seems to be a proposition which could form the basis for inquiry about anything other than that thing itself.25 Furthermore, the first and second roads do seem to be mutually incompatible ((131.1-2a) and (Simp. Phys. 145.11 (B8.11)); and ‘something exists’ and ‘something does not exist’ are not, and do not even appear, incompatible, whereas ‘there is’ and ‘there is not’ are certainly incompatible. This leaves ‘there exists’ as the most plausible option. On this interpretation, (τὸ) ἔστιν would denote the existence that ‘there exists’ postulates, and (τὸ) μὴ ἔστιν would (illegitimately) denote the non-existence that ‘there does not exist’ postulates.

*a rational beginning*

In short, the crux of the initial argument in the Way of Truth is that the second road is rejected because the postulate of non-existence does not imply true thoughts. But what does this initial argument tell us about Parmenides’ rationalism? We saw that it is not being itself that we νοεῖ perceiv, nor non-being that we fail to νοεῖ. Consequently, the possibility of an empirical justification of ἔστιν does not arise. Quite the contrary. No proof of any kind is given of ἔστιν; nor disproof of οὐκ ἔστιν. Hence the premises – ‘there is’ and the denial of ‘there is not’ – do seem to be construed as self-evident on a priori grounds. There is little argument at this stage, however: (128) – (133) contain little more than the statement that the second road is incompatible with the first. As we shall see, the properties that Parmenides derives from ‘there exists’ (and the denial of ‘there does not exist’) are derived by reason alone. But even in the initial argument there is

23 Indeed, it is claimed that Greek metaphysics generally is of things not facts (eg. Mourelatos: 1970, p. 60). And although it makes perfect sense to move from an existential premise such as ‘there exists’ or ‘something exists’ to the predication of certain properties to that existence, I find it impossible to see how one would move from a veridical frame to the predication of certain properties to some unestablished existence (cf. McKirahan: 1994, pp. 162-3).

24 The Way of Opinion is about extensive scientific matters; the Way of Opinion = the third road (see ch. 5); clearly the first road = the Way of Truth; so if the first and third roads are roads of inquiry into the same thing, then the Way of Truth is about extensive scientific matters. All three roads are usually taken to be roads of inquiry into the same thing – that is, three possible routes to the same destination. This is implied by the fact that it is the inability of the false roads to get us anywhere that Parmenides attacks, but there is no suggestion that there is anything wrong with the intended destination.

25 It might be argued that I am being too limiting in my use of ‘thing’. But some limits have to be put on the meaning of ‘something exists’ otherwise this just slides into ‘there exists’. For example, we might suppose that some stuff exists; this might be gold or masonite, but at this point it is quite indeterminate what the stuff is; and ‘some (initially) indeterminate stuff exists’ is little different from ‘there exists’ (at least if one accepts that Parmenides’ being is physical, as I argue below).
The underlying truth, Parmenides' Way

the implication that Parmenides proceeds by deriving necessary consequences (130.1a) from a necessary premise (128.3b). Furthermore, the properties derived by reason are attributed to (τὸ) ἔόνυ, which denotes existence – that is, presumably, reality. That is, features of reality are derived by reason alone from a priori premises, so we can at least conclude that Parmenides was a rationalist (r).

But can all such truths be attained by reason alone? (129), (130.1a) and (133) all relate unqualified true thought to being: suggesting that all and only true thoughts are implied by ἔστιν. Of course, there may be an implicit scope to these thoughts. But we have seen that ἔστιν postulates unqualified existence, and that (τὸ) ἔόνυ, in turn, denotes this unqualified existence. This does seem to imply that everything that exists, or reality as a whole, is within the scope of the desired true thoughts. That is, the initial argument does suggest that Parmenides believed that all truths about all of reality can be attained by reason alone (rationalism (R)). But to test this suggestion we must ask ‘just what truths does Parmenides derive from ἔστιν in the remainder of the Way of Truth?’

revelation and the intuitive gaze

But before we answer this question we must ask how even the conclusion that Parmenides was a rationalist (r) can be squared with the fact that Parmenides presents his poem as a revelation: if the Way of Truth is simply revealed to Parmenides, isn’t revelation really the source of all knowledge of reality? Well, no. We could still say that divine reason is the source of all human knowledge of reality; but, more importantly, the argument of the Way of Truth is still one that is comprehensible to mortals, and one that a mortal could have theoretically devised for himself (as of course, in truth, one did). More inimical to the rationalist interpretation is Cornford’s (1952, p. 118) claim that it was not in fact by divine testimony that the poem was revealed to Parmenides, but through the gift of second sight (see ch. 1) – that is, Parmenides actually saw, albeit with an “inward eye”, the reality that he describes in the Way of Truth (cf. Cornford: 1970, p. 37; Snell: 1953, pp. 147-9). The Proem does not support this: there the goddess simply tells Parmenides her account of the two Ways.

However, the Proem is doubtlessly symbolic in many of its details, so perhaps even this point is symbolic, and the goddess was really responsible for giving Parmenides this gift of second sight. But is there any reason to adopt such an unlikely reading of the Proem – that is, is there any solid textual evidence for the thesis that Parmenides was really given the gift of second sight by the goddess? The only suggestion of this is in the following fragment which, read literally, does describes the application of second sight:

Gaze upon [things which], though absent, are still firmly present to the mind:
for it will not sever what is from what is to hold [onto what is]
neither being scattered in every way everywhere throughout the cosmos
nor coming together
(134: Clem. Misc. 5.3.15.5 (B4)).26 27

Second sight just is the capacity to literally gaze upon things absent. But it is far from clear that λεύσωσω *gaze upon* is meant literally: the fact that things gazed upon are "present to the mind" suggests that λεύσωσω refers to mental or intellectual perception. Furthermore, the fact that Parmenides is expected to verify the Way of Truth by reason (123.5) seems to contradict the claim that the goddess really provided Parmenides with second sight: if he had seen "with an inward eye what had really taken place" (Cornford: 1970, p. 37), it seems unlikely that he would require a way to check what he had seen for himself. So, all in all, I believe λεύσωσω is being used figuratively to refer to mental perception. This still makes Parmenides seer-like in that he represents himself as able to perceive the truth beyond the capacities of the common run of humanity (compare Heraclitus (in ch. 4)).

But does this reference to mental perception tell us anything about Parmenides' epistemology? It does seem to tell us something about the nature of Parmenides' rationalism. Coxon (1986, pp. 187-8) argues that (134) is an exercise in the correct method that leads down the first road. The imperative λεύσωσω *gaze upon* suggests instruction in method: when the imperative is not being used by the goddess to tell Parmenides to listen, it is typically used in instruction about method – for example, ἑρέμε *restrain* (123.2), μὴ δεῖ *do not let* ... *force* (123.3), κρίνει *judge* (123.5). This method is the *gaze*; and gazing with the mind would seem to allude to an intuitive, as opposed to ratiocinative, element in Parmenides' rationalism.28 Such mental intuition seems appropriate for the acceptance of the *a priori* premises of ἐστὶν and not ὦν ἐστὶν. However, (134.3-4) seems, in essence, to say that what is gazed upon is undivided reality (cf. Coxon, pp. 188-9; Taran: 1965, pp. 49-50). Yet indivisibility is one of the features that is derived from these premises by argument later in the Way of Truth (see below). This apparent use of two distinct methods – the ratiocinative and the intuitive – can be easily explained: Parmenides may have *presented* his insights in a ratiocinative form so as to convince others of these insights, but have originally *arrived* at his conclusions by intuitive

---

26 Coxon (1986, pp. 189, 191) argues that this fragment is closely followed by (123) because "the plural μὴ ἐστιν [are not (123.1)] seems to echo the plurals ἀπεστίν [absent] and παρεστίν [present] in (134) ... [and] the phrase εἶναι μὴ ἐστίν refers ... to the supposition that there are μὴ ἐστίν ['non-beings'] which could divide Being from itself". He also thinks that it comes after (124) – i.e. between (124) and (123) (p. 187). However, since the language of this fragment is completely different to that of both (124) and (123), which I have argued (in ch. 5) are quite similar, the sequence of (124) – (134) – (123) seems unlikely.

27 There are two further possible allusions to Heraclitus here (see ch. 5 note 26): 'present to the mind though absent' reverses (107); and "neither being scattered ... nor coming together" negates "it scatters and collects itself again" (Plut. E 392b (22B91); 1b) (cf. Guthrie: 1965, p. 32). The latter Heraclitean fragment is doubtful, however (cf. esp. Marcovich: 1967, pp. 206-11).

28 It is also claimed that this is implied by νοέω *think, perceive* (see note 7), so possibly also by the noun equivalent, νοῦς *mind*.
'revelations'. This does not contradict the thesis that Parmenides was a rationalist; it simply means the nature of that rationalism may have involved less ratiocinative argument and more mental intuition than the Way of Truth otherwise suggests.

Coxon further suggests that in (134.1) Parmenides is contrasting mental perception with visual perception – that is, (134.1) cashes out as 'gaze upon things which, although absent to the senses, are present to the mind'. As I just said, what is gazed upon, indivisibility, is one of the features of existence derived in the Way of Truth. Assuming that the method for deriving each feature of existence is the same, then if Coxon is right, reason is the only way to attain the truths derived in the Way of Truth, these truths are only present to the mind. So, on this interpretation, there is a scepticism corresponding to Parmenides' rationalism (so if this were rationalism (R), say, we would also have scepticism (S)).

AND ON THIS ROAD THERE ARE VERY MANY SIGNS

We saw that rationalism (R) was suggested in the initial argument of the Way of Truth, and that (134) can be interpreted in a way that implies scepticism (S) from (R). But does the metaphysical theory elaborated in the central passage of this Way (Simp. Phys. 145.2-146.22 (B8.2-49)) support these suggestions of rationalism and scepticism? We should note here that if these implications of (R) and (S) are sound, and it is possible to interpret the remainder of the Way of Truth (B8.2-49) in a way that entails (R) and (S) (even if this is not the most natural reading), then this would be quite compelling grounds for attributing these epistemological theses to Parmenides.

We must first ask ‘is Parmenidean being physical reality?’ The following implies that it is:

But since there is an outermost limit, it is complete,29 [and] like the bulk of a ball, well-rounded from every side, pushing out equally30 in every direction from the middle: for there need not be anything greater nor anything less here or there, for neither is there what is not which would stop it reaching its like, nor is there what is which would allow more here and less there of what is, since it is all inviolate.

29Some commentators place the comma after πάντοθέν from every side, but Mourelatos (1970, p. 123 n. 24) argues convincingly that the ‘occurrences of τέλος-adjactives with ἐστι in B8.4 and B8.32 indicate that τετελειμένον ἐστί is the complete predication; the parallels μέσοθέν ἰσοπάλης in B8.44 and πάντοθέν ἱσον in B8.49 strongly favour connecting πάντοθέν with ἐκκύκλου’.

30Following Mourelatos (1970, p. 123 n. 24). 'Pushing out equally brings out the combative sense of ἰσοπάλης. On this translation, ἰσοπάλης probably repeats the idea of being "reaching its like" (135.5-6a), "holding together" (136.2b), and ‘approaching being’ (136.4b), which is integral to the idea of spatial homogeneity (see below). But the combative connotation was not necessarily intended (ἰσοπάλης could have been chosen over ἰσος, say, for purely metrical reasons). In this case ἰσοπάλης would just mean equal, and ‘equal in every direction from the middle’ would then be another reference to sphericity (see note 49).
For equal to itself from every side, it sits evenly within the limits
(135: Simp. Phys. 146.15-22 (B8.42-9)).

That being is physical is, firstly, implied by (135.3b-7). I find the meaning of
(135.3b-7) very straightforward (except for the impenetrable expression “it is all
inviolate”31): what is is spatially homogenous – that is, all parts of what
is are equally real, or contain equal amounts of what is – because no part of
it contains what is not, and there are no different degrees of what is in
different parts. The language of this passage is clearly spatial: principally, the
references to “here and there” and to “reaching its like”. So anyone who
wishes to deny that Parmenidean being was spatial must provide strong
grounds to counter the natural reading of this passage, but I have found no
attempt that is even remotely compelling. For example, Coxon (1986, p. 217)
argues that since there is no non-being and no degrees of being, being “has
of necessity no degrees of magnitude”. I can only assume that his argument
is: ‘Parmenides says there are no degrees of being of any kind; magnitude is
a kind of degree; therefore being has no magnitude’. But what Parmenides
actually says is there are no different degrees of being in one part of being
than another – there is not “more here and less there”.32

Similar spatial language is involved in the following:

Nor is it divided, since it is all alike,
neither anything more here, that would prevent it holding together,
nor anything less, but it is all full of what is.

Hence it is all continuous, for what is approaches what is.
(136: Simp. Phys. 145.23-26 (B8.22-5))

It has been pointed out that συνεχὴς continuous without the dative seems
to be exclusively used in its temporal sense from Homer up to the archaic
period. Indeed the earliest evidence given for a spatial meaning in Liddell
(1940) is precisely its occurrences in Parmenides (here and at Simp. Phys.
145.6 (B8.6)) (Loenen: 1959, p. 68 n. 140). Hence, it is argued, συνεχὴς denotes
temporal continuity here (Loenen, pp. 63, 74-5, 104-5; cf. Owen: 1960, pp. 97-
8). But the opposite is true of διαίρετος divided in (136.1a), which is clearly
the contrary of συνεχὴς. So either the spatial sense of διαίρετος is right,
hence συνεχὴς takes on its new spatial sense here; or the temporal sense of
συνεχὴς is right, hence διαίρετος must be given a novel temporal sense. Yet
the verb form συνέχω holding together (136.2b) has a predominantly and
long standing spatial sense – eg. enclose (Hesiod, The Shield 315). Indeed,
the language of (136) is entirely spatial with the one exception of συνεχῆς
(although Melissus’ usage makes ὁμοιοίος alike ambiguous, taken by itself (cf.
Loenen, p. 105; and see ch. 7)), hence there is every reason to think that it is

31I find Coxon’s (1986, p. 216) interpretation of this expression the most plausible: it is a
summary of the preceding denial of non-being and degrees of being.
32And Guthrie’s (1965, pp. 25-6) claim that the object of ὁμοίος refers not only to the
intelligible “but also and everywhere denotes the bodiless and immaterial” (p. 25) is simply
anachronistic: it may be true of Plato, but it is certainly not true of Heraclitus (see ch. 4), who
was closer to Parmenides than Plato; and there is simply no textual evidence that it is true of
Parmenides.
indeed with Parmenides that we first encounter συνεχής in its spatial sense.33

Parmenides also seems to say that being has a physical outermost limit (135.1a). This also implies that being is physical. Tarán (1965, pp. 115-7) makes a thorough attempt to demonstrate that πείρας limit does not refer to a spatial boundary, but to logical constraint. The argument is as follows. Parmenides’ ‘bonds’ are associated with “traditional figures which in early Greek thought indicate the ineluctable law of destiny” (p. 117) – namely, “fetters of Justice” (Simp. Phys. 145.14 (B8.14)), ‘in the bonds of the limit of Necessity’ (139.5b-6), and ‘bound by Fate’ (137.2). Within the context of the rational argument of the Way of Truth, being bound by an “ineluctable law of destiny” would probably refer to logical constraint. πείρας is closely associated with these bonds ((139.1) and (139.6)) (cf. Guthrie: 1965, pp. 37-8). Hence πείρας also refers to logical constraint, not a physical limit. Against this, firstly, the qualification of πείρας as a limit “that encloses around” (139.6) suggests a spatial limit. Secondly, “in the bonds of the limit” (139.6) most likely refers to immobility, which could be due to some logical constraint, but it is more natural to suppose that it is due to physical constraints (cf. Guthrie: 1965, p. 45) (“Necessity” could still refer to logical constraint, but this logical constraint would be the reasoning that leads to the conclusion that there are physical bonds, and consequently immobility).34 Thirdly, a logical sense for πείρας outermost is unprecedented. It can have a temporal sense, but a temporal sense for πείρας just doesn’t work in (135.1a). Hence πείρας πείρας παραθετον most likely refers to a physical outermost limit. In short, it seems most likely that πείρας refers to a physical limit, which again implies that Parmenides’ being is physical.35

We have seen that Parmenidean being is unqualified existence. Consequently, we can rule out the possibility that being refers to some strong sense of reality that does not include all there is, all that exists. If being was, then, anything other than physical reality (cf. Tarán: 1965, p. 193), scepticism (S) would follow automatically since this would entail a denial of physical reality. On the other hand, the fact that being refers to all that exists means that being is not just a part of physical reality, which would seem to

---

33Loenen’s attempt to dismiss Parmenides’ spatial language as all metaphorical and used only because “the image of the ball was present to his mind from the outset” (pp. 112-3) hardly warrants mention.

34“In the limits of great bonds” (139.1) could also refer to immobility, but it probably refers to changelessness (see below). In fact (139.5b-6) could also refer to changelessness. If this were the case, the limit would be temporal rather than spatial, as Tarán concedes, and consequently (139.5b-6) would give us no clue to the meaning of (135.1a) since a temporal meaning makes no sense there. However, (139.5b-6) relates to the previous clause “in this way it firmly remains there”, which most likely refers to immobility.

35A more typical argument against the interpretation that being has any physical boundary is that this would imply non-being – i.e. there must be non-being viz empty space beyond this boundary (Tarán: 1965, p. 152; Owen: 1960, p. 96). This argument assumes that space must be infinite: hence if physical reality isn’t, there must be empty space. I simply do not accept that Parmenides had to believe that space is infinite (cf. Barnes: 1979, p. 204). Guthrie (1965, p. 46) goes so far as to suggest that it is anachronistic to suppose that the question ‘what then is beyond what is?’ would have occurred to Parmenides. (His comparison with Einstein is, however, ill chosen – a universe with curved space can be finite precisely because in such a universe finitude need not imply a boundary (cf. Einstein: 1960, pp. 108-12).}
entail that being is identical to physical reality. If this is right, then if some feature is attributed to being that contradicts some basic feature of all empirical phenomena, then empirical phenomena cannot be a part of physical reality, so scepticism (S) would still follow.

It has been claimed that just such a basic feature of empirical phenomena, namely change, is denied by Parmenides. We must examine the evidence for this claim. It is important to remember that the question we are asking is ‘did Parmenides deny change within being qua physical reality?’ For example, if he is just denying that being or physical reality as a whole doesn’t move, this would not contradict empirical experience, he would have to be denying that anything within physical reality does not move before there would be any sceptical implication. Of course, the strongest sceptical implication results if all change within physical reality is denied, so we must pay particular attention to this possibility. There is some kind of denial of change in the following:

For nothing <either> is or will be other than what is, since Fate bound it to be whole and unmoving. Therefore all things have been named in so far as mortals laid them down and trust them to be true: to become and to perish, to be and not [to be], and to change place and to change bright colour (137: Simp. Phys. 146.9-14 (B8.36b-41)).

Some of the properties listed in (137.5-6) have already been denied (generation and perishing at least (Simp. Phys. 145.6-22 (B8.6-21))), so we would expect them to be introduced as things that do not exist. What we are told is that they “have been named”. This suggests that “have been named” means ‘have merely been named’ – that the names ‘generation’ and

36Woodbury (1971, p. 149) and Mourelatos (1970, p. 182) argue that τὸ therefore should be read as a pronoun referring back to (τὸ) ἔδων – this would give us ‘it is this [what is] which’. For Mourelatos this is mainly because of “the whole weight of the chain of references to what-is that begins at B8.29”.

37Woodbury (1971, pp. 147-8) convincingly argues for ὅνομαστα have been named instead of Diels’ ὅνομα ἔσται will be a name. ὅνομαστα has better ms. credentials: ὅνομαστα occurs in three out of four ms. of Simplicius where he quotes all of B8.1-52, although ὅνομαστα occurs in only one ms. where he repeats only two lines; but in the former he must be working from a text, in the latter he could be working from memory. The problem with ὅνομαστα is that ὅνομαστα is unmetrical, and ὅνομαστα apparently ungrammatical. However, Woodbury argues, one of these forms must have occurred in Simp. Phys. 180.9 (B9.1) since only ὅνομαστα and ὅνομαστα are attested in the ms. But ὅνομαστα is just as unmetrical, and ὅνομαστα just as ungrammatical in B9.1 as it is here. So in B9.1 either grammar was sacrificed (or modified) for metre, or metre for grammar; if one of these sacrifices could have been made in B9.1, it could have been made here. Since it is, then, possible that ὅνομαστα is the correct text here, we should accept that it is the correct text since it is best attested in the ms. Finally, it is more likely that grammar was sacrificed, or rather modified, for metre than the reverse, so the correct text is probably ὅνομαστα (although this is still middle/passive perfect).

38It is fairly obvious that most of the properties in lines 5-6 refer to different kinds of change. This is not so obvious for “to be and not to be”, but this is usually taken to be guilty by association (see note 42).
'perishing' signify nothing real. But the reference of (137.3b-4) is to everything listed in (137.5-6); so if this is the meaning of “have been named”, everything in (137.5-6) is rejected as unreal. That the properties of (137.5-6) are mere names is further implied by (137.4): there is “no true trust” in mortal opinions (126.3); so if mortals trust their names, there must be something amiss in those names. And we have seen (in ch. 5) that ‘mortal opinions’ are most likely amiss in that they are simply false. In short, comparison with (126.3) makes the most plausible reading of (137.4) ‘in so far as mortals laid down these names and mistakenly trust them to be true’.40

(137.3b-6), then, seems to be a denial of various forms of change. But does (137.3b-6) really deny the existence of any change within being, let alone all change? Generation and destruction could just refer to the coming to be and ceasing to be of reality as a whole; and likewise change of place could just refer to the movement of reality as a whole. However, “to change bright colour” cannot be so easily dismissed. It seems implausible to suppose that Parmenides wished to deny change of colour but to accept all other change within being.41 All the same, these considerations do make (137.3b-6), by itself, a weak basis for attributing the radical thesis that there is no change to Parmenides; but just the denial of change of colour clearly has serious sceptical implications.42 But there are other passages that could be

39Some commentators argue that the names of these things do refer to something real – namely, (rò) ἐοv (see note 36; and ch. 5 note 56). If this is the case, the names are not mere names as defined. However, the names could still be mere names in a weaker sense: in that they do not refer to what mortals believe they refer to.

40Woodbury (1971, pp. 145, 149) disputes the supposition that in Parmenides’ time naming could constitute the construction of a mere name – a name that signifies nothing real. However, in Parmenides names and naming are connected with the rejected third road/Way of Opinion ((125); Simp. Phys. 180.9-12 (B9); Heavens 558.9-11 (B19)), with one exception (131.3) (Loenen: 1959, p. 40 and n. 68; and see ch. 5) (Loenen dismisses the exception saying that “we may undoubtedly assume that Parmenides no longer felt the meaning of ὄνωμα in this word” νίς ἀνώνυμως unnamed). In particular, the two forms that are at the basis of the Way of Opinion are named (125); if the Way of Opinion is simply false, then these forms cannot be real; and there is good reason to accept that the Way of Opinion is false (see ch. 5); so I think we must accept that Parmenides did introduce the admittedly odd concept of a mere name.

41Guthrie (1965, p. 43) accepts that Parmenides denied all qualitative change on the basis of (137.6b) alone since “such alteration would indeed be immediately recognised in his time as a special case of becoming” so the denial of such change follows without comment from the denial of generation and perishing. But why, then, did Parmenides distinguish qualitative change from generation and perishing in (137.5-6)?

42But there is also “to be and not to be”. I have already argued (in ch. 5) that this alludes to the more complete “being and not being are ... the same and not the same”. These have been taken to be a denial of qualitative change in general. Verdenius (1964, p. 55) suggests that “being and not being are ... the same and not the same” is “Parmenides’ conclusion regarding [mortal] belief that change really exists”: if something changes from black to white it both is black and (then) is not black, hence to be and not to be are the same; however, black and white are contraries, hence to be and not to be are not the same (cf. McKirahan: 1994, pp. 164-5). But this is hardly the only way to take these cryptic passages, even on accepting that they refer to change. For example, the phrase could refer just to generation and perishing: if \( x \) perishes, say, then \( x \) was but now is not; existence and non-existence are clearly different states, so they are not the same; but they are attributed to the same thing, \( x \), so they are the same.
interpreted as arguing against change in general. One or the other of the following two passages is generally nominated as containing the argument against change:

How then would what is be? How would it become?
For if it became it is not, nor if once it intends to be
(138: Simp. Phys. 145.20-1 (B8.19-20)).

But motionless in the limits of great bonds
it is beginningless and endless, since generation and destruction
have wandered far away, true trust thrust them away.
Remaining the same and in the same state, in this way it firmly remains there. For strong Necessity holds it in the bonds of the limit that encloses around it
(139: Simp. Phys. 145.27-146.4 (B8.26-31)).

For (138) to be an argument against change, \( \gamma\iota\nu\nu\omicron \alpha \) would have to have the more general meaning of change. \( \gamma\iota\nu\nu\omicron \alpha \) is extremely variable in its meaning, so this sense is quite possible. All the same, the context tells against taking \( \gamma\iota\nu\nu\omicron \alpha \) to refer to all change. This passage comes at the end of a long demonstration of the ungenerability of being, and there is little to show that it is anything but another nail in the coffin of generation. The only reason I can see that it is taken as anything else is the opacity of its meaning.

It seems more plausible for (139.1-4a) to be an argument against change. Certainly, \( \acute{\alpha} \kappa \iota \nu \eta \tau \omicron \sigma \) would have to have the more general meaning of changeless, but here we also have a less ambiguous affirmation that being is unchanging in the phrase “remaining the same and in the same state” (139.4a). Furthermore, (139.1-3) may contain an argument against change – namely, being is \( \acute{\alpha} \kappa \iota \nu \eta \tau \omicron \sigma \) because there is no generation or destruction. It is possible to cash this out as an argument against change, but it is hard to see how it could be an argument against motion. Change is then simply a particular kind of generation and perishing; the generation of the new state of affairs and the perishing of the old. But there may be no argument for \( \acute{\alpha} \kappa \iota \nu \eta \tau \omicron \sigma \) in (139.1-3) at all. Indeed it is quite natural to read these lines as stating that being is \( \acute{\alpha} \kappa \iota \nu \eta \tau \omicron \sigma \) and then recording a completely tangential remark about the denial of generation and destruction implying that being is beginningless and endless, and then only returning to the issue of \( \acute{\alpha} \kappa \iota \nu \eta \tau \omicron \sigma \) in (139.4). But even without the argument, we still seem to have a statement of changelessness in (139.4a).

---

43 \( \tau \omicron \upsilon \tau \omicron \omicron \) in the same state could be a dative of manner, as translated, or of place – in the same place. Barnes (1987) and Coxon (1986, p. 207) adopt the former option, Coxon backing this up with examples of similar use; Kirk (1960, p. 2; 1957, pp. 276-7) adopts the latter.

44 The phrase could, however, mean “remaining the same and in the same place” (see above note), but even then “remaining the same” alone still seems to refer to changelessness.

45 Kirk (1960, p. 2) believes that the argument is against motion, but to make sense of such an argument he has to put in the intermediate step that there is no change because “all change involves the illegitimate concept of coming-to-be and passing-away”. Motion is then denied simply because it is a kind of change.
The underlying truth, Parmenides' Way

So there are reasons to suppose that Parmenides did deny all change to being. Although this does seem to be the most likely conclusion, let us be clear that this is not as obvious as it is often taken to be. There is the claim that being 'remains the same and in the same state'. This does read naturally as saying that being doesn't change. However, this is not much by itself, and all other evidence is problematic. Firstly, there are the two passages in the Way of Truth that could contain an argument against change in general. But neither passage must be interpreted in this way. Secondly, the various forms of change denied in (137.5-6) need not refer to change within being, with the apparent exception of change of bright colour. It was argued that the denial of this fairly specific kind of change, however, stands in for all qualitative change within being because there is no apparent reason for the denial of such a specific example of qualitative change. But Cornford (1939, p. 43) suggests that the point of referring specifically to colour is that colour was "regarded as the inseparable concomitant of the surface or 'limit' of a solid body. Since being has a [physical] limit, it might be expected to have colour". So it is possible that even change of colour does not refer to change within being, let alone all change within being.

However, if being is physical reality and if being is changeless, then physical reality is changeless. The thesis that physical reality is changeless has obvious sceptical implications. The denial of change certainly contradicts most sensory information, but it probably actually contradicts all sensory information. Theoretically a particular observed static scene could still be real. But even if this were so, how could we know one particular static scene was real, rather than a previous or later static scene in the same location? More importantly, any 'snap shot' of the phenomenal world only makes sense as a part of a process: the occupants of the phenomenal world – people, trams, computers, etc. – just can't exist as static objects. So the denial of change does seem to be sufficient to give us scepticism (S). As for rationalism (R), if there is no change, then to know everything about reality (at all times) it is sufficient to know everything about reality at one time.46 So the possible features of reality are infinitely reduced, but the possible features of reality at one point in time could still be significantly large. Consequently, changelessness is not sufficient to claim a particularly strong rationalism for Parmenides. In short, if reality is changeless, this is sufficient to attribute (S) to Parmenides, but we can only attribute rationalism (r) to him – changelessness is certainly a significant conclusion, so at least one important truth about reality can be known by reason alone.

But we must now return to the issue of spatial homogeneity. We have seen that Parmenides argues that (i) no part of being contains non-being and (ii) each part has the same degree of being, hence all parts of being are equally real. But this quantitative homogeneity by itself implies nothing about Parmenidean epistemology. Qualitative heterogeneity could be easily superimposed over this quantitative homogeneity: for example, one bit of being could be gaseous and another solid; and quantitative homogeneity could just mean that inter alia air is no less real than rock. So the real

46 If Parmenides did take being to be atemporal, this means there is only one time, now. But this, of course, leaves us with essentially the same conclusion.
question is 'did Parmenides claim that being is completely spatially homogenous - homogenous in all its features throughout all its parts?'

There is some suggestion of this in (137.1-3a). 'Motionlessness' is argued for in (139), and 'unmoving', as we have seen, probably refers to changelessness. 'Wholeness', I presume, is argued for in (136) and (135.3b-7) - that is, 'wholeness' refers to spatial homogeneity. This conclusion is essentially derived by a process of elimination. The only properties of being proven or elaborated in the Way of Truth that could be construed as 'wholeness' are spatial homogeneity and the completing limit; but we are told that completeness is another property in addition to wholeness (Simp. Phys. 145.4 (B8.4)); hence spatial homogeneity remains as the only candidate (but cf. Coxon: 1986, pp. 196-7). So (137.1-3a) claims that changelessness and spatial homogeneity somehow imply "nothing either is or will be other than what it is". We might expect changelessness and spatial homogeneity to imply something like 'every spatio-temporal part of being is the same as every other (of equal size and duration)'. And this is a possible reading of (137.1-2a): "for nothing [viz no part of what is] either is or will be other than [any other part of] what it is". This conclusion, however, seems to require the assumption of complete spatial homogeneity, not just quantitative homogeneity. That is, the argument seems to require that wholeness refers to the spatial equivalent of changelessness - namely, complete spatial homogeneity. This suggests that it is in fact complete spatial homogeneity, not merely quantitative homogeneity, that is elaborated in the Way of Truth.

That complete homogeneity is involved is suggested by the phrase "it is all alike" (136.1b) (cf. Coxon: 1986, p. 204). But this by itself provides little evidence either way since ὁμοιότατος alike could also mean equal, hence (136.1b) could simply mean 'it is all equally real'. Indeed, this latter reading is suggested by the next two lines which appear to explicate this very statement. However, there are two other possibilities. Firstly, complete homogeneity viz "it is all alike" is the premise which implies the weaker claim of quantitative homogeneity viz "neither anything more here ... nor anything less [there]". But how, and where, then, does Parmenides arrive at complete homogeneity? Secondly, quantitative homogeneity entails complete homogeneity. This is not as implausible as it may first seem: Parmenides could have denied not just the properties listed in (137.5-6), but all properties other than those given in Simp. Phys. 145.2-146.22 (B8.2-49). Indeed (137.3b-6) could read as 'all things are mere names − for example, generation, perishing ...'. In this case the quantitative features of being are its only features, hence quantitative homogeneity would result in complete homogeneity. We should note, however, that so far the only thing commending this conclusion is that it helps us to make sense of the argument at (137.1-3a). And this by itself is not compelling grounds for

47This conclusion is reinforced by the fact that spatial homogeneity and 'motionlessness' are the two properties proven immediately prior to (137): it makes sense for them to be demonstrated just before they are used as the premises for the proof of another property.

48Furthermore, there is good reason to believe that (137) demonstrates that being is μονογένας of one kind (Simp. Phys. 145.4 (B8.4)) (cf. Tarán: 1965, pp. 140-1). This could cash out as a statement that being is homogenous viz 'the same throughout'.
attributing such a radical thesis as the denial of all qualitative properties to physical reality.

But if physical reality is completely spatially homogenous, we can derive from this similar consequences for Parmenidean epistemology as we derived from changelessness. The denial of spatial differentiation clearly contradicts all sensory information, so this is also sufficient to attribute (S) to Parmenides; and likewise for the denial of qualitative properties. Again, complete spatial homogeneity is a significant conclusion, as is the denial of qualitative properties, so each of these conclusions results in rationalism (r). Furthermore, if reality is completely spatially homogenous, then (with the exception of the question of the outer boundary of Parmenidean being) if one knows everything about one part, or point, of reality at a given time, then one knows everything about all of reality at that time. And what if we combine changelessness and complete spatial homogeneity? Such four-dimensional homogeneity would seriously diminish what there is to know about reality: to know everything about all of reality it is sufficient to know about one point of reality at one moment. Furthermore, the absence of differentiation and change limits the possible properties that any spatio-temporal part of reality could have: it clearly can’t have any shape, and if colour is conceived as being a feature of surfaces, it would have no colour. And would it make sense to ask if it is soft or hard, liquid or solid? But even four-dimensional homogeneity does not give us (R), at least not conclusively. For this reality must also have no qualitative properties. But is even this enough to give us (R)?

Even if we accept that Parmenides’ reality is four-dimensionally homogenous with only quantitative features, if being is also spatially limited, there does seem to be one outstanding question: ‘what shape is reality?’ (135.1b-2), taken by itself, could be read as saying that being is a sphere (as is a well-rounded ball); or as saying that being is like (but not actually) a sphere (cf. Mourelatos: 1970, p. 126). However, the reason provided for the comparison (135.3b-7) seems to require the latter interpretation: the claim that what is is spatially homogenous just does not imply sphericity. So I do not believe that being is a sphere. But if being is limited and it is not a sphere, are we not still left with the question ‘what shape is being?’ Not necessarily. If being is limited, space must also be limited: there can be no empty space outside being since this would be non-being. But if Parmenides did not conceive of anything beyond being, it is

49  ἐὖκυκλος well-rounded does not mean spherical – ie. perfectly rounded. That strict sphericity is meant is indicated by the further qualification “from every side”. Sphericity is also suggested by the phrases “equal to itself from every side”, and “it sits evenly within the limits” (135.8). But these phrases also suggest the equal reality of all parts of being. I suspect that this ambiguity is intentional, and similar intentional ambiguity may apply to (135.3a) (see note 30).

50 The point of the comparison is then that being and a sphere are both perspectively neutral – that is, a sphere looks the same from every perspective and being is the same at every point (Mourelatos: 1970, pp. 128-30).

51 See note 35.
not clear that he must have conceived of being as shaped since this implies something, space at least, beyond being to define that shape.\textsuperscript{52}

So, in conclusion, it would seem that being is physical reality. We have also examined the possibility that being is (i) changeless, (ii) completely spatially homogenous, (iii) devoid of qualitative properties, and (iv) shapeless. (i) – (iii), at least, were not shown conclusively to be features of Parmenidean being; indeed so far the evidence for (ii) and (iii) is quite weak. However, combined with the conclusion that being is physical reality, (i), (ii) or (iii) would imply scepticism (S) and rationalism (R). To conclude that Parmenides was a rationalist (R), (i), (ii), (iii) and (iv) must be right. It might seem that (iii) alone implies (R); and indeed (iii) alone would be enough to conclude that all important truths can be attained by reason alone. But without (ii) the possibility of gaps in being and different grades of being would leave open the question of where such variations might occur. And even (ii) plus (iii) leaves open the possibility that such variations may occur later in being. Furthermore, (i) – (iii) still leave unanswered the question ‘is being shaped and if so what is that shape?’ These are trivial questions compared to the question of whether reality has any qualitative properties, but the fact remains that, strictly, for (R) to apply these questions must be answered or made redundant. In short, Parmenides must have attributed all of (i) – (iv) to physical reality for rationalism (R); but it is possible to read the Way of Truth in a way that entails just this. Since such a reading simply confirms what was strongly implied by the initial argument, it would seem that we should accept this reading, in spite of any weaknesses in the direct evidence for the attributes (i) – (iii).

A JOINING OF THE WAYS

But the story above contradicts the conclusions derived from examining the third road/Way of Opinion (in ch. 5). There we concluded that Parmenides was not a sceptic (S), and that he was not denying all change. I considered the possibility that Parmenides did deny the reality of change, and that the cosmology of the Way of Opinion was merely an example of what had distracted earlier philosophers from reaching the same conclusion. However, this reading, as we saw, trivialises the Way of Opinion, and does not sit well with several themes that emerge from a close examination of this Way. But another escape from this apparent contradiction seems to be to just say ‘since the arguments for the aforementioned properties (i) – (iii) all have their problems, we can simply deny that Parmenides really attributed these to being’. This move would, however, leave us with a number of problems to mop up. Firstly, there is still the apparent implication of the initial argument that the Way of Truth should imply rationalism (R). Secondly, if we deny that Parmenidean being is (ii) completely spatially homogenous and (iii) without qualitative

\textsuperscript{52}To help imagine how someone could conceive of being as limited but not having shape or anything beyond it, not even space, try imagining being from the \textit{inside}, not the from outside (and far enough away to see the whole thing), as you probably did as soon as it was suggested that being might have a physical limit.
properties, then we are, naturally, left with the problem that led us to these conclusions – the argument at (137.1-3a) still seems to require that ‘wholeness’ refers to the spatial equivalent of changelessness. Thirdly, if we also denied that Parmenidean being is (i) completely changeless, what are we to make of the various references apparently denying some kind of change or other?

But these difficulties are easily solved by one simple move: taking ἔστιν to postulate the underlying substratum of reality and (τὸ) ἕν to denote this substratum. That is, ἔστιν postulates unqualified existence not only in the sense that it postulates what exists without exception, but also in the sense that it postulates existence abstracted from its accidental properties. And it is quite possible to construe the few quantitative properties attributed to being in the Way of Truth as the only essential properties of existence simpliciter. Consequently, there is, after all, an implicit scope to the true thoughts implied by ἔστιν – namely, the nature of this substratum of reality, not the nature of physical reality in full – hence eliminating the apparent implication of rationalism (R). And, of course, this substratum could still be physical, as is Parmenidean being. With this move we can also make sense of Parmenides’ various denials of change. As we saw, none of the various kinds of change listed in (137.5-6) need refer to changes within being. Furthermore, the argument against change in (139.1-4) would, on this interpretation, refer to some temporal equivalent of quantitative spatial homogeneity. Although this could be a denial of ‘temporal voids’, there is no reason to bring such an odd concept into our account. It is more likely that a denial of change in the substratum of reality just means that no spatial voids, or variations in degrees of being, will develop, or ever did occur, in the substratum. And once we accept that the only change within reality that Parmenides denied was change in the nature of the substratum, then the problem with the argument at (137.1-3a) is easily solved: quantitative spatial homogeneity is all ‘wholeness’ need refer to after all for ‘wholeness’ to be the spatial equivalent of this changelessness, and so to make sense of the argument. This then leads to neither the conclusion of (ii) complete spatial homogeneity nor (iii) the denial of qualitative properties to physical reality. The conclusion that being is limited but shapeless is, incidentally, unaffected by the interpretation that being is just the substratum of physical reality.

There are further advantages to this interpretation. Although the Way of Opinion demonstrates that Parmenides is concerned with cosmology, it also shows that he is principally concerned with the fundamental principle on which cosmology rests. This had typically been a material substratum (the ἄρχη of his predecessors (see esp. ch. 2)). Hence if...
the Way of Truth doesn’t spell out a complete alternative cosmology, which it doesn’t, then we would expect it to at least spell out the correct principles upon which any cosmology must rest, which, on the present interpretation, it does. There is an asymmetry, however, between the two Ways: there is no suggestion in the Way of Truth that a correct cosmology could be derived from these principles, let alone how it would be derived. Parmenides' concern seems to be just to establish certain basic conditions to which any cosmology must conform – to establish certain necessary conditions for any cosmology.54 55

Furthermore, certain difficulties, relating to the place of people and thought in Parmenides' reality, disappear on the present interpretation. Firstly, accepting an unchanging, undifferentiated reality “implies that not only what men think they sense is pure illusion, but that they themselves are pure illusion” (Chalmers: 1960, p. 12): there is just no place for people in such a reality. And to deny one’s own existence is an even more radical step than to deny the existence of all external empirical phenomena.56 This problem is made even more difficult by the role of thought, and knowledge, in the Way of Truth: could Parmenides really have believed in free floating thought without a thinking subject (Chalmers, pp. 12-3)? Of course, just because we find such consequences hard to accept, it doesn’t mean Parmenides did: but could he have accepted them without comment?57 Secondly, even if Parmenides did accept these consequences, the very possibility of thought that was affirmed in the initial argument seems to be denied if reality is indeed unchanging. It is difficult to see how thought can be analysed as anything but a process; so if all reality is changeless, even free floating thought could not be a part of reality. And it is difficult to see how Parmenides could have missed this problem. These difficulties, of course, disappear if being refers to just the substratum of physical reality. But one

54These conditions are necessary, it would seem, in a strong sense: they are necessary truths in their own right – being derived by necessary inference from a necessary premise (see above). However, if the whole purpose of the Way of Truth is to derive necessary conditions for a correct cosmology, the necessity of the premise might not be absolute; perhaps ‘there exists’ is only necessary if we are to construct a cosmology (or, more precisely, if there is a phenomenal world to be explained by a cosmology).

55This, I presume, is essentially Mourelatos' (1965, pp. 358-61) point. That is, Parmenides' purpose in writing his poem was to get at the criteria for the sort of basic stuff that his predecessors had uncritically presupposed. I disagree with Mourelatos, however, on two key points. Firstly, I do not believe that the type of thing that can fit these criteria is open­ended. Mourelatos suggests that the sort of thing that could adhere to Parmenides' criteria might be ‘matter in its simplest form’, but it could also be mind, or space, among other things (p. 361). However, it can only be the first of these: it is physical and it is full; it is a material substratum. Secondly, Mourelatos takes Parmenides' criteria to denote reality proper, as opposed to the appearances (p. 362). But it is far from obvious that Parmenides drew this distinction. Certainly, the postulation of a material substratum, an ἀρχή, does lead to the distinction between reality and appearance, but this distinction is not explicitly drawn out before Melissus (see ch. 7). Parmenides is thought to have explicitly drawn out this distinction because the claim that the Way of Opinion is 'fraudulent' is taken to be a claim that the phenomena themselves are 'fraudulent'. I believe this to be a mistake (see ch. 5).

56This is exemplified in Descartes (1970, esp. pp. 66-7, 300-1), who found it possible to doubt the existence of external reality, but not his own existence viz a thinking substance.

57Any such comment would have come at the end of the Way of Truth, which has been preserved by Simplicius (Phys. 146.23-5 (B8.50-2)).
problem does seem to remain. On the present interpretation, being refers to the substratum of all that exists, and this substratum is still physical – that is, the substratum of all that exists is physical; but thought is not physical. However, it is not difficult to see how Parmenides could have missed this more subtle problem. So his failure to address the problem presents no difficulty for this interpretation.

Another apparent problem with the substratum move is as follows. (137.3b-6) would, then, appear to say that βποροί mortals, without qualification, incorrectly attribute various forms of change to the underlying reality; but it is clearly only philosophers that could have committed such an error. However, as we saw (in ch. 5), βποροί does principally refer to philosophers: the Way of Opinion is a cosmology, the subject matter of philosophers, yet it is called “mortal opinions” (Simp. Phys. 38.31 (B8.51); cf. (126.3)). Furthermore, this apparently overly specific reference of the very general term, βποροί, is readily explained in the third road/Way of Opinion: the error of philosophers had been to fail to detach themselves from certain empirical habits of mortals in general.

The long and the short of this is that the present interpretation – being is the substratum of physical reality – is the one that fits best with all elements of Parmenides’ poem, and eliminates some other difficulties for the alternative as well. For this reason it should be accepted. Admittedly there is no text that unambiguously refers to this substratum, but there is no text that unambiguously refers to the physical reality of our empirical experiences either. Indeed, I do not think a straightforward textual analysis could ever yield the exact referent of ἐότων or (το) ἐόν: we have no option but to rely on broader context to determine the interpretation that has the best ‘fit’.

The conclusions derived in the Way of Truth are still substantial truths about reality, so Parmenides is indeed a rationalist (R). However, the very fact that Parmenides doesn’t derive a complete picture of reality in the Way of Truth suggests that he is not a rationalist (R): since a correct cosmology is possible (see ch. 5), if it could be completely derived from ἐότων, it presumably would have been. We have every reason to suppose that there is a scepticism corresponding to Parmenides’ rationalism – that is, the account of the substratum could not be derived from the senses. As we saw, such a correspondence seems to be implied by (134); and Parmenides’ criticism of the role of the senses in the derivation of first principles (although this only involved a certain aspect of sensory experience) also suggests this. But this does not even give us scepticism (S): for this the senses must tell us nothing about a whole subject, in this case cosmology, not just the first principle of that subject. Furthermore, if reason alone is not enough to give us a complete cosmology, and a complete cosmology is possible, then the senses must play some role in cosmology. Denouncing the senses as an inappropriate guide to inquiry (in ch. 5) suggests that reason would also have some role in constructing a cosmology beyond first principles. This is further suggested by Parmenides’ tendency to derive the cosmology in the Way of Opinion from the fundamental principles of light and night with little recourse to empirical evidence: this is in opposition to the methodology of his predecessors, as we have seen (esp. in ch. 2), and
seems to be best explained by his own bias towards the application of reason. In short, first principles – the nature of the substratum – are derived by reason alone; but the construction of cosmology beyond first principles most likely requires reason and the senses together. Unfortunately, the extant fragments tell us nothing about just how reason and the senses might work together in the construction of such a correct cosmology.

CONCLUSION

The initial argument of the Way of Truth seems to imply that all true thoughts about all that exists could be derived by reason alone – that is, it seems to imply that Parmenides was a rationalist (R). Furthermore, it is possible to derive this conclusion from the Way of Truth itself. Unfortunately, such an interpretation also implies scepticism (S), in direct contradiction to the implications of the Way of Opinion. To eliminate this apparent contradiction it was necessary to reinterpret ἐπὶ τὸν ἐπὶ τὸν as postulating the substratum of reality. Parmenides is then a rationalist (r) – only the nature of the substratum is determined by reason alone. The reason involved was probably that of mental perception. His scepticism is probably also limited to the nature of the substratum, so does not even constitute scepticism (s).

PARMENIDES IN CONTEXT

As with all the philosophers we have examined so far, the epistemological concerns of Parmenides are restricted to scientific matters. To gain an understanding of these matters Parmenides, like Heraclitus, seems to have reverted to the use of divine revelation. But in Parmenides the role of divine revelation is essentially superficial. Unlike information about the distant past, say, the metaphysical insights of the Way of Truth could have been attained without divine help. Furthermore, to comprehend these insights an intellectual perception was required over and above the information revealed. This perception is akin to the special faculties of seers, but hardly identical to it. So Parmenides and Heraclitus were alike in their adaptation of the Homeric themes of revelation and the ‘seer’.

The most important difference to divine revelation in Homer is that in Parmenides it is not empirical information that is being transmitted. The goddess revealed an elaborate a priori argument to Parmenides. Such arguments were already developed by Anaximander and Xenophanes, but only as an adjunct to empirical inquiry: Parmenides brings rational inquiry to centre stage. He probably didn’t eschew all empirical inquiry, but rational inquiry was certainly given primacy over it: reason alone determined the most basic principles; and was probably the only appropriate guide for all scientific inquiry. This stronger emphasis on rationalism may have been a reaction to Xenophanes’ critique of empirical inquiry.58 This is far from

58If Xenophanes applied his scepticism to his a priori arguments “about the gods”, Parmenides may simply have not accepted this – after all the focus of Xenophanes’
obvious, however. Parmenides explicit criticisms of the senses are directed more at the use of observation as a source of cosmological ideas – as exemplified mainly in Milesian analogy – than at the use of inferences from empirical evidence.

reflections on method does seem to be empirical method – or he may not have accepted that it applied to a priori argument from such a basic premise as ‘there exists’.
In recent years, there has been a growing interest in the field of......

...technology, particularly in the context of......

...approaches to...
Chapter 7

MELISSUS AND ZENO:
THE STARK REALITY OF ELEATIC REASON

In the previous chapter I argued that Parmenides' poem was intended to establish the nature of the substratum of reality, and that although this substratum is itself changeless and undifferentiated, it is consistent with the changing and differentiated phenomenal world. But is this also true of the other Eleatics, Melissus and Zeno?

Much of Melissus' treatise follows the pattern of Parmenides' Way of Truth, but we should not take it for granted, because of this, that his metaphysics, and its epistemological consequences, are the same as Parmenides'. We must ask afresh 'is Melissean being also a substratum, or is it, contra Parmenides, identified with physical reality as a whole; and is this being changeless and spatially homogenous?' I argue that Melissean being is spatially infinite, hence physical. It could, then, be a substratum like Parmenidean being. But this begins to look doubtful when we turn to the question of change. Melissus' being, like Parmenides', is changeless; but he seems to deny qualitative change, not just quantitative change in the substratum. As for spatial homogeneity, it is possible that he derived qualitative homogeneity in general, not just in the substratum, from quantitative homogeneity; this, however, is far from conclusive. These suggest that his being is not just the substratum, but physical reality as a whole. This suggestion is confirmed in his only epistemological fragment. This denies the existence of the phenomena, in essence, as follows: whatever exists must be as being is; being is unchanging, but the phenomena change; so the phenomena don't exist. This argument would not follow if Melissean being were just the substratum, and makes most sense if his being is simply physical reality. So for Melissus physical reality is unchanging, hence he is a sceptic (S) and rationalist (R). As we saw with Parmenides, he would in fact be a rationalist (R) if reality were also completely spatially homogenous and without qualitative properties. There is no evidence that Melissean being is without qualitative properties, so we cannot say he was a rationalist (R).

Zeno's treatise is entirely negative: attacking the critics of Eleatic philosophy. His paradoxes do not, however, bear any similarity to Parmenides' negative comments in the third road/Way of Opinion. They also contain no explicit epistemological statements, so again we must try to determine only what epistemological implications should follow. So, we must ask, 'do these paradoxes imply a denial of the reality of the
phenomenal world or the veracity of our senses?' His so called paradoxes against plurality can be construed as denying that being is divided, so they need not relate to the phenomenal world at all if for him being is the substratum. However, the millet-seed paradox does clearly present a problem for the phenomena, and at least two of his paradoxes against motion, the Achilles and arrow, unambiguously refer to events in the phenomenal world – to a race between Achilles and a tortoise, and to the flight of an arrow. The millet-seed does not have an obvious general application, but the paradoxes of motion do. That is, these paradoxes of motion at least contradict the entire phenomenal world, and imply scepticism (S).

So both Melissus and Zeno appear to radically depart from Parmenides on this point. This can be easily explained in Melissus’ case: Melissus may simply have misinterpreted Parmenides; the two men may never have met; so this misinterpretation would go unnoticed. Zeno, on the other hand, did know Parmenides, and is represented as his faithful disciple. But it doesn’t necessarily follow from the fact that Zeno’s paradoxes imply scepticism (S) that Zeno was a sceptic (S). The paradoxes may have been sophistical: Zeno may have been happy for them to imply more than he himself accepted provided they caused his opponents some grief. Furthermore, the supposition that Zeno was a faithful disciple of Parmenides rests on claims made in Plato’s Parmenides; and the historical accuracy of this dialogue is questionable.

CHANGE AND HOMOGENEITY IN MELISSUS

The clarity of Melissus’ writing makes the job of interpreting him much easier than that of Parmenides. But the most difficult point of interpretation is determining whether or not Melissean being is physical: specifically, whether or not it is spatially extended. Certain fragments do seem to say that Melissean being is infinite in extent, and, by implication, that it is physical:

For if it were [infinite], it would be one: for if there were two, they would not be infinite, but would limit one another (140: Simp. Heavens 557.16-7 (30B6)).

Nothing which had a beginning and end is either eternal or infinite (141: Simp. Phys. 110.3-4 (B4)).

Thus, in this way, it is eternal and infinite and one and the same throughout (142: Simp. Phys. 111.19-20 (B7.1)).

But just as it is always, so in magnitude too it must always be infinite (143: Simp. Phys. 109.31-2 (B3)).
Melissus and Zeno: the stark reality of Eleatic reason

(147) also seems to imply that being has physical body.\(^1\) All the same, Simplicius has good reason to doubt that these fragments refer to spatial infinity and to claim that, for Melissus “magnitude does not mean what has extension” (Phys. 109.32):\(^2\)

So if it were, it must be one; but being one it must not have body. If it were to have thickness, it would have sections and no longer be one (144: Simp. Phys. 109.34 + 87.6-7 (B9)).

Burnet (1945, pp. 327-8) argues that (144) is directed against the Pythagorean ultimate units. Burnet does not clearly spell out what this argument is supposed to be. The best I can make of it is: if an ultimate unit existed, it would have to be one \textit{ex hypothesi}; but if this ultimate unit were extended (as it is conceived to be), it would be mathematically divisible; yet, \textit{being a mathematical unit}, this would make the ultimate unit more than one \textit{per impossible}. Melissean being, however, is not a mathematical unit, therefore it would have to be \textit{physically} divided to make it more than one, but extension does not imply physical divisibility. Barnes (1979, pp. 226-8) argues that (144) is a more general polemic against the units of a plurality: their plurality requires them to be separate in space;\(^3\) this makes them susceptible to physical division; so eventually they will divide; hence they cannot be permanent unities. But does it really matter to \textit{all} pluralists whether or not there are permanent unities? If this is the basis of (144), I think it would have to be directed specifically against the atomists. I am sure the atomists would simply deny that separation in space leads to physical division. But the fact that the argument would not have been persuasive does not mean Melissus could not have presented it. These interpretations of Burnet and Barnes are perfectly consistent with the text of (144). However, they read into it far more than is there, or can be supported by other texts. All the same, both resolve the apparent contradiction in the Melissean fragments (that Melissean being is both infinite in extent and unextended) without forcing an untenable reading on any text.

The basic move in these interpretations is to take (144) as polemical: it does not tell us anything about the Melissean one – Melissean being viewed as an indivisible whole – rather it is a criticism of some \textit{other} unity, or unities. Against this move, Raven (1948, p. 88) is certainly right that the optative conditional in (144) in no way supports the interpretation that (144) is polemical: Melissus does make use of this is his \textit{constructive} metaphysics

\(^{1}\)Taran (1965, pp. 196-7) and Vlastos (1953/1, p. 35 n. 1) argue that (147) is polemical. However, it occurs in the context of a clearly constructive account of the nature of being, so to dismiss it as polemical, but deny that the isolated fragment (144) could be polemical, seems perverse (cf. Booth: 1958, p. 63; and see below).

\(^{2}\)Simplicius’ definition of \textit{m̄yγεθος magnitude} (Phys. 109.34) is vague, but on any interpretation it seems unlikely. He could mean that the magnitude of being is “the intensity of its reality” \textit{viz} being is chocker block full of reality (see below). Or he could mean that it is “the emience of its reality” (b) \textit{viz} being is \textit{more real} than, say, the phenomenal world. But, on either interpretation, I do not accept Simplicius’ definition: \textit{m̄yγεθος} just is a spatial noun.

\(^{3}\)Although this seems at odds with Barnes’ claim that qualitative heterogeneity can result in a plurality (see below).
However, Raven, and Vlastos (1953/1, p. 34) after him, are simply wrong in claiming that if (144) were directed against Pythagorean ultimate units, it would also work against the Melissian one (p. 89). In Burnet’s interpretation Melissus presents a problem for reified mathematical units: he presents no problem for a straightforward physical unity such as his being. And clearly in Barnes’ interpretation the problem is restricted to the units of a plurality (cf. Barnes: 1979, p. 228). So the “escape” of taking (144) as polemical does not require “the assumption that Melissus’ argument is deliberately sophistical” (Vlastos: 1953/1, p. 34).5

Vlastos’ solution to the apparent contradiction requires an implausible reading of the fragments. He argues that ἀπειρός infinite always refers to temporal infinity (pp. 34-5). In (140) δύο τω δο certainly could refer to two things consecutive to one another in time. But the reference to ἄδιας eternal in (141) makes ἀπειρός redundant if it means temporally infinite – that is, eternal; and οὐτε ... οὐτε either ... or makes a merely emphatic repetition unlikely (although the argument does make more sense if only temporal infinity is derived from the absence of a beginning and an end (Vlastos, p. 35))6. An emphatic repetition also seems inappropriate in (142), which is a brief summary of the distinct properties of being to be proven in the remainder of Simp. Phys. 111.18-112.15 (B7).

These difficulties might be dismissed as minor compared to accepting that Melissus contradicted himself. However, I find a temporal reading of ἀπειρός in (143) untenable. There is clearly a comparison; but Vlastos would have Melissus comparing temporal infinity to itself – ‘just as it is always, so it must always be always’. But not only is there, then, a pointless comparison of eternity to itself, there is also a pointless attribution to eternity – what is ἀπειρός always is αἰὲ always. Finally, μέγεθος in magnitude is a spatial noun: it refers to physical size (cf. Kirk: 1957, p. 300 n. 2). Tarán (1965, p. 287) fairs a little better. He claims that “when he asserts that the One is infinite, he means only to deny any difference in Being”. Neither the comparison nor the attribution in (143) is pointless on this reading, but now the comparison makes little sense. Also μέγεθος remains a spatial noun.

4Loenen (1959, p. 174 n. 92) claims that the initial phrases of (140) – εἰ γὰρ εἶν, ἐν εἴη αἰ for if it were, it would be one – and (144) – εἰ μὲν οὖν εἴη, δὲ αὐτό ἐν ἄδιαν so if it were, it must be one – “are perfectly identical in meaning”. But there are good reasons to deny this in spite of the similarity between the phrases. Besides the very fact that taking the latter as counterfactual, but not the former, would avoid the apparent contradiction in the fragments that we are presently dealing with; it does seem necessary to supply ἀπειρός infinite in the former, but not the latter, to make sense of the argument (but cf. Loenen, p. 174).

5Raven also presents the following argument that (144) gives a positive account of the Eleatic one: both Parmenides and Melissus denied “any sensible attributes to the One”; body is a sensible attribute; therefore, if asked ‘does being have body?’, they would have said ‘no’ (at least if they had a clear conception of the incorporeal) (pp. 90-1; cf. Guthrie: 1965, pp. 111-2). But I just do not think that either Parmenides or Melissus denied all sensible properties to being. Now, Parmenides may have denied all qualitative properties to being (since these would be accidental properties of existence itself), and Melissus may have followed him in this (although there is really no evidence that he did (see below)). But ‘qualitative’ ≠ ‘sensible’ – eg. extension and weight are both quantitative and sensible properties.

6And for just this reason temporally infinite is the natural translation of ἀπειρός in Simp. Phys. 109.20-5 (B2).
Given the three choices of (i) accepting that Melissus did actually contradict himself – claiming that being is both infinite in extent and unextended; (ii) imposing an extremely unnatural reading on one or more texts; or (iii) reading far more into one or more texts than is actually there; I think we must accept (iii). Therefore, (144) should be read as a polemic against some unity, or unities, other than the Melissean one. Once this is accepted, there is no reason to doubt that (143), at least, refers to spatial infinity (cf. Barnes: 1979, pp. 200-1; Guthrie: 1965, pp. 108-10). So Melissean being is infinitely extended. Consequently, it cannot be just a distinct spatial part of physical reality. It would seem, then, that Melissean being could be identified with either physical reality or the substratum of physical reality.7 Comparison with Parmenides would lead us to suspect the latter, but Melissus’ account of change makes the former seem more likely.

Melissus denies qualitative change to being in the following:

For if it were to suffer any of these things, it would not be one: for if it alters, necessarily what is is not the same, but what was before has been destroyed, and what is not has come to be. Now if it altered by one hair in ten thousand years, it would all perish for all time (145: Simp. Phys. 111.21-4 (B7.2)).

Change of place is also clearly denied:

For if what is has been divided, it would be set in motion: but moving, it would not be (146: Simp. Phys. 109.32-34 (B10)).

And it is in no way empty: for what is empty is nothing, and8 nothing will not be. Nor does it move: for it has no way to have retired, but it is full. For if it were empty, it would retire into what is empty, but not being empty, it has nowhere to retire (147: Simp. Phys. 112.6-10 (B7.7)).

(145) does not just refer to quantitative change in the substratum (such as the appearance of a void here or there), in fact it does seem to deny all kinds of change to being. This is strictly consistent with the identification of being and the substratum of physical reality: the substratum has no qualitative properties, since these are not essential properties of existence itself, hence trivially it undergoes no qualitative change. The problem is that (145) occurs

---

7 In Melissus (rò) év could still denote some special form of reality that does not include all there is, since there is no postulation of unqualified existence in Melissus’ treatise that (rò) év clearly denotes (although his treatise does begin with a reference to ὁ πᾶν ἄνω whatever was (Simp. Phys. 162.24 (B1)), which could be read as a reference to unqualified existence (but cf. Loenen: 1959, pp. 126-30)). That is, even if being were identified with physical reality, Melissus could have accepted the existence of incorporeal entities such as minds over and above being. Of course, an argument from Parmenides to Melissus could be used here: since Melissus is a follower of Parmenides, (rò) év must refer to unqualified existence in Melissus if it so refers in Parmenides. But this is a fairly weak argument by itself (see below).

8 The best answer to the troublesome év and (normally therefore) here seems to be provided by Loenen (1959, p. 163; relying on Denniston: 1954, p. 422): οὐκ ὄν ... γε (more typically oὐκοὐν ... γε) means at any rate not – ie. ὄν merely strengthens γε which emphasises οὐκ. Denniston has two examples of this usage with οὐκ ὄν (Xen. Cyro. 3.3.50; Sparta 5.9) (p. 424).
within a set of substantial, non-trivial, claims about being. Furthermore, there seems to be little doubt that (146) and (147) deny movement within being: they could just refer to the movement of chunks of the substratum, but it is hard to see how this immobility would not extend to the phenomenal level of physical reality. In short, (145) – (147) could be made to fit with the identification of Melissaean being and the substratum of physical reality, but this is forced – they simply do seem to deny change in physical reality generally, not just the substratum. This would, of course, make Melissus a sceptic (S), and at least a rationalist (r).

We must now turn to the question of spatial homogeneity. Was Melissaean being simply quantitatively homogenous, or qualitatively homogenous also? Barnes (1979, pp. 208, 215) argues that ὁμοιος the same refers to four-dimensional qualitative homogeneity. Specifically, (145), he claims, contains the following argument: alteration denies four-dimensional qualitative homogeneity – this follows trivially since ‘it doesn’t alter’ is just part of what it means to say ‘it is four-dimensionally homogenous’ (p. 215); and qualitative heterogeneity denies that what is is one – if parts p and q of what is are not qualitatively homogenous, then there is at least one property that p has and q does not, hence, by Leibniz’ Law, they are distinct, and what is is two (p. 208). But the argument works just as well if ὁμοιος has a merely temporal sense: the denial of temporal homogeneity follows just as trivially from alteration; and temporal heterogeneity implies two things at two different times. In short, (145) could involve a superfluous spatial qualitative homogeneity, but there is just no reason to suppose that it does (cf. Loenen: 1959, pp. 155-6).

Furthermore, in the following passage ὁμοιος the same also seems to mean the same over time:

Nor would it be the same if it were to suffer: for it would suffer by something being lost or added, and it would not be the same (148: Simp. Phys. 112.3-4 (B7.4)).

This passage is not entirely clear, but “something being lost or added” must be the specific change involved; so again the implication is just that suffering implies that something is not the same over time. This meaning of ὁμοιος is clearest in (150.3): “All these seem to change; and what something was and what it is now are nothing alike ὁμοιοιος”.

But Melissus could be denying qualitative heterogeneity in denying rarity and density in the following:

And it would not be dense and rare: for the rare cannot be as full as the dense, but already the rare becomes emptier than the dense (149: Simp. Phys. 112.10-2 (B7.8)).

---

9Guthrie (1965, pp. 113-4) takes this passage to imply that Melissaean being was alive: if Melissus denied all sensation to being, we would expect him to deny that it feels either pain or pleasure. This point is further supported by the statement “nor could what is healthy suffer” (Simp. Phys. 112.4-5 (B7.5)), which does seem to imply that being is healthy (cf. Vlastos: 1953/2, pp. 167-8).
And since it cannot be even partly empty (147), it cannot be rare. That is, Melissus analyses different degrees of density in terms of different amounts of non-being (or void) in a given area of being. Consequently, the denial of non-being entails the denial of rarity and density viz the existence of different degrees of density. This could be just a further elaboration of quantitative homogeneity, but the reference to “dense and rare” could well be an allusion to Anaximenes. Anaximenes may well have made rarefaction and condensation the basis for all qualitative variation (see ch. 2). That is, Anaximenes seems to have made quantitative variations in density the cause of all qualitative variations. Melissus could have accepted this dependence of the qualitative on the quantitative: that is, he could have accepted that all qualitative variation would result from the mechanism of rarefaction and condensation. But, of course, the denial of rarity and density makes rarefaction and condensation impossible; so the denial of rarity and density entails the denial of all (spatial and temporal) qualitative variation. In short, if the argument against rarity and density was directed against Anaximenes, this opens the possibility that Melissus rejected qualitative heterogeneity along with quantitative heterogeneity. But this is far from conclusive. Of course, if Melissus did adopt this argument, then he unambiguously denied the existence of qualitative variation. Even if Melissean being were just the substratum, hence abstracted from qualitative properties, the above argument would still require that the quantitative homogeneity of the substratum caused qualitative homogeneity throughout the physical reality that it underlies.

The dependence of the qualitative on the quantitative does not entail a denial of qualitative properties, however. For this conclusion Anaximenes and Melissus would have to have reduced the qualitative to the quantitative; and then made the further inference that this made quantitative properties the only real properties and qualitative properties essentially an illusion resulting, say, from the action of these real properties on our senses. A reductionist interpretation of Anaximenes is possible; and it may well be that a primary/secondary quality distinction follows from it; but there is simply no evidence that either Anaximenes or Melissus actually made such an inference. In short, there is no evidence that Melissus denied the existence of qualitative properties; and only fairly weak evidence that he thought physical reality is completely spatially homogenous. So we would be hard pushed to attribute rationalism (R) to him.

Scepticism (S) is another matter. If quantitative homogeneity causes qualitatively homogeneity, this would deny differentiation at the phenomenal level, which would make Melissus a sceptic (S). Furthermore, Melissean being is changeless; but the denials of change seem to read as denials of change at the phenomenal level as much as in the substratum – that is, as denials of all change of physical reality; this would also make Melissus a sceptic (S).

---

10 (147) immediately precedes (149).
But the conclusion that Melissus was a sceptic (S) is spelt out most clearly in his only explicitly epistemological fragment:

(1) So this argument is the greatest sign that there is only one: but there are these signs too. (2) For if there were many, they must be of this kind – such as I say the one is. For if there is earth and water and air and fire and iron and gold, both living things and dead, and black and white and the other things, as many as people say are true, and if these are, and if we see and hear correctly, then every [thing] of this kind must be such as they first seemed to us, and not to change nor to become different, but every one to be always just as it is. Now we say we see and hear and perceive correctly.11 (3) But what is hot seems to us to become cold, and what is cold hot, and what is hard soft, and what is soft hard; and living things [seem to] die and come to be from what is not alive, and all these [seem to] change; and what something was and what it is now are nothing alike. But the hard iron [seems] to be rubbed away by contact12 with the finger, and gold and stone and all other things that seem to be hard. And earth and stone [seem] to come out of water, so it turns out that we neither see nor perceive13 the things that exist. (4) Now these things do not agree with each other: for while saying there are many eternal [things] that have form and strength, all seem to us to alter and change each time we see them. (5) Now it is clear that we did not see correctly and these many things do not truly seem to be: for they would not change if they were real, but each of them was as it seemed,14 for nothing is stronger than what is real. (6) But if it does change, what is was destroyed, and what is not has come to be. So in this way, if many things were, such things must be just as the one [is] (150: Simp. Heavens 558.19-559.13 (B8)).

The argument of this fragment appears to proceed as follows:

11This may constitute an allusion to Heraclitus (92) (although we should note that the parallel between these two passages is not as close in the Greek as in my translations). This does not mean, however, that this fragment was directed solely at Heraclitus (see below).
13The translation of γινώσκω perceive as know is possible here. The claim that we don’t know says more than the claim that we don’t see. But that we don’t know the plurality could follow from our not (truly) seeing a plurality – i.e., in ruling out that we (truly) see a plurality we have ruled out the only justification for claiming to know that there is a plurality (see below; but cf. Loenen: 1959, pp. 171-2). However, the context does not suggest any such inference, so a term closer in meaning to ‘see’ seems more appropriate. This is further suggested by the parallel at the end of section 2: “we say we see and hear and perceive correctly”.
14That is, each thing was changing, therefore each thing (hence the plurality) is not true or real. The sense of this and the preceding and following clauses is, on this reading, ‘they would not change if they were real because nothing is stronger than the real, but they do change’. Barnes (1987; 1979) and Kirk (1983) have ‘would be’ instead of ‘was’ – e.g., “but each would be as it seemed to be”. The sense of the aforementioned clauses in this case, I presume, is ‘they would not change if they were real because nothing is stronger than the real, and furthermore they would seem not to change’.
Melissus and Zeno: the stark reality of Eleatic reason

(i) What is [viz the one] cannot change since this entails generation and perishing (150.6).
(ii) If there are many things, each thing must have all the properties attributed to the one (150.2, 6).
(iii) So if there are many things, they must be unchanging (150.4-5).
(iv) Therefore, if the many things of sensory experience (the phenomena) exist and our senses are correct, then the phenomena, be they materials, properties or individuals, must appear unchanging (150.2).\(^{15}\)
(v) But the phenomena in fact appear to change (150.3-5).
(vi) Therefore, (a) we do not see correctly (150.5), and (b) the phenomena do not seem to exist (150.5), and (c) we do not perceive a plurality (150.3).
(vii) Therefore, there is only one (150.1).

Clearly, this argument is not self-contained: the denial of generation and perishing is implicitly assumed. Generation is disproven in Simp. Phys. 162.24-6 (B1), and perishing perhaps in Simp. Phys. 109.20-5 (B2).\(^{16}\) A detailed assessment of these arguments would take us too far afield, but all we need to note here is that these metaphysical conclusions are derived by reason alone. For the purposes of examining (150) we need only treat the denial of generation and perishing as an (unexpressed) premise of the argument. (i), then, presents the following argument: change is analysed as a kind of generation and perishing; [but there is no generation and perishing]; so there is no change. The justification of (ii) seems fairly clear if we assume that what is denotes physical reality in general, not just the substratum: the properties of the one are derived by reason; and initially these properties are attributed to what is (what exists) – it is only later that it is determined that what is is one (140); so the insistence that these properties of the one viz what exists must hold of any other postulated existents would follow trivially from the supposition of the superiority of Eleatic reason. That is, Melissus believes that

\[(P) \text{ anything that exists must have the properties derived by Eleatic reason.}\]

\(^{15}\)This step requires some justification. The phenomena “must be such as they first seemed to us, and not to change nor to become different” doesn’t strictly mean ‘the phenomena must appear unchanging’, rather it essentially means ‘the phenomena are as they appear to be and they do not change from this apparent state’. If the phenomena are as they appear and are unchanging, it follows that they appear unchanging. So, strictly, it is implied, rather than simply stated, that ‘the phenomena must appear unchanging’ is the consequent in (150.2). But since Melissus proceeds to attack the claim that the phenomena appear unchanging in the next sections, the ‘implication’ that the phenomena must appear unchanging is still probably the point Melissus is getting at.

\(^{16}\)Strictly this only proves that what is is endless. Since this fragment also proves that what is is beginningless because it was ungenerated, beginninglessness is presumably distinct from the denial of generation. So endlessness is presumably distinct from the denial of perishing. But if we can assume that the denial of perishing and endlessness trivially imply each other, this fragment could be taken as entailing a denial of perishing. Similarly, such a denial of perishing is implicit in the temporal reading of (140) (see above).
Furthermore, the insistence that the postulated many things must have the properties attributed to the one strongly suggests that this superiority of Eleatic reason results from the assumption that Eleatic reason proceeds by necessary inference (from necessary premises?) (an assumption that was probably already made by Parmenides (see ch. 6)). So, given the superiority of Eleatic reason, if many things do exist, each of these must have all the properties derived by reason in Melissus’ treatise. As (i) states, changelessness is one of these properties. (iii) then follows straightforwardly: if many things do exist, they must be inter alia unchanging.

Since Melissus’ intent is to disprove the possibility of a plurality (150.1), the point of (150) must be to show that the units of any plurality must change, hence cannot really exist. But at this point the argument shifts from dealing with “many things” in general to the phenomena in particular. So we must first examine the argument against the phenomena in (iv) – (vi), then determine why this is presented as an argument against pluralities in general.

Having established that a plurality must be unchanging, Melissus could have then simply said that we can see that the phenomena change, so the phenomena do not exist. This is doubtlessly the crux of the argument, but the complete argument is a little more complicated. Two implicit steps can be drawn out of (iv):

(iv') If the phenomena exist, [then these must really be unchanging].
(iv'') If our senses are correct, [then all the apparent properties of the phenomena will be their real properties].

(iv') is just a special case of (iii); (iv'') is analytically true; and from (iv') and (iv''), (iv) follows easily. The next step is presumably meant to be a step of Modus Tollens: (v) contradicts the consequent of (iv), hence the antecedent of (iv) is false. But a denial of the antecedent of (iv) – either the phenomena do not exist or our senses are not correct – is not quite what we find. Nor do we find a conjunction instead of the disjunction: (a), presumably, equals the second disjunct; but (b) is not the first disjunct. So we cannot simply round off by saying Melissus made the simple blunder of not appreciating one of de Morgan’s laws.

The argument certainly does get convoluted at this stage, but it is not at all obvious that it is invalid. To see this we must firstly appreciate the connection between saying ‘the phenomena exist’ and saying ‘our senses are correct’. These two propositions could be taken as identical: the phenomena – earth, gold, living things etc. – just are the things that appear to the senses, so to say ‘our sense are correct’ could just mean ‘the phenomena exist’ – that is, ‘the things that appear to the senses exist’. However, ‘our senses are correct’ could also be given a stronger reading: ‘the phenomena exist just as they appear to the senses’. Since “if these [various phenomena] are, and if we see and hear correctly” reads as listing two distinct conditions, this stronger reading is the more plausible. That is, the claim that the phenomena exist leaves open the possibility that some (but not all)

17See note 15.
properties of the phenomena may not be just as they appear; but the strong reading of ‘the senses are correct’ closes off this possibility. On being distinguished in this way, ‘the phenomena do not exist’ entails ‘our senses are not correct’, but the latter does not entail the former. In short, Melissus’ argument so far should give us (p) ‘the phenomena do not exist or our senses are not correct’; but (q) ‘if the phenomena do not exist, then our senses are not correct’ could be an implicit, analytically true, assumption; and (p) and (q) imply ‘our senses are not correct’ viz (a).

But what of (b) and (c)? The argument so far only allows us to conclude (a); and this does not prove that the phenomena do not exist, only that they are not just as they appear. But the phenomena must not be as they appear on a very fundamental point: they must be unchanging. This makes it improbable that the phenomena exist, and this is essentially what (b) claims. On this reading (a) implies (b); but these are presented as a conjunction. This reading does, however, make sense of Melissus’ argument so far, and it also means that the argument is quite reasonable up to this point (any problems in logic are to be found in the metaphysics, not the elaboration of the epistemological consequences). Although (c) is not explicitly conjoined to (a) and (b), it is presented as following directly upon pointing out (v) that the phenomena do in fact appear to change. But (c) also makes better sense as a further step in the argument – that is, if we take it to be implied by (b): it constitutes the shift from denying the phenomena to denying pluralities in general – “the things that exist”. (b) concludes that the phenomena probably don’t exist; if the phenomena don’t exist, then we can’t truly perceive the phenomena; the phenomena are the only perceivable plurality; so (c) we cannot truly perceive any plurality.

But this only demonstrates that there is probably no perceivable plurality. It is the express purpose of (150) to prove (vii) that there is no plurality of any kind; but the denial of any perceivable plurality clearly does not disprove the plurality of Democritus’ atoms, for example. This step in the argument might be explained if we read (150) as polemical. It seems most likely that the polemic would be directed against people in general, given the breadth of the phenomena Melissus lists (cf. Barnes: 1979, p. 299; Loenen: 1959, pp. 169-70). But the existence of the phenomena could still be the only alternative to monism actually proposed: his treatise probably did predate the atomists. So by disproving the only alternative to monism that had been proposed, he feels he has proven monism. Barnes (1979, pp. 301-2), however, suggests that the argument is not simply a polemic against a proposed alternative to monism, but an argument against the possibility of any plurality. If reason leads only to monism, as Melissus supposes, then the senses are the only basis for belief in a plurality. So if this basis can be removed, a belief in pluralism would be unsupported, hence should be rejected. And this does fit well with my interpretation of the argument so

---

18 This, however, requires that ὅσσεω seems is used differently here than its various other occurrences throughout (150): in its other occurrences it refers to how things appear to the senses; here it refers to what seems to be the case, what seems most likely.

19 Any similarity with previous philosophical schools (for example, the reference to the four elements, and the claim that “earth and stone seem to come out of water”) at most shows that these schools were included among those whom Melissus is attacking.
far: this has the conclusion that “there is only one” following directly from (c) we do not perceive a plurality.

In short, (150) does seem to deny the existence of the phenomena, or any other plurality. This interpretation, however, has been disputed. Loenen (1959, pp. 132-6; cf. Mourelatos: 1965, pp. 362-3) argues that Melissus is concerned with a strict sense of existence: in denying that the phenomena, or any other plurality, exist he only means that they do not exist eternally and without change; but he is not saying that they do not exist in the ordinary, unstrict sense (pp. 168-72). He argues that there is no essential difference in meaning between ἐστιν are and εἶναι ὁληθὴν are true (150.2) (pp. 134-5), and that εἶναι ὁληθὴν gives this strict sense. However, we hardly get from εἶναι ὁληθὴν ‘to be truly in the sense of being eternal and changeless’; and, besides, the most natural way to take εἶναι ὁληθὴν is that it is emphatic, and is used here simply because being is directly contrasted with what is normally thought to be. All the same, Loenen’s interpretation does have some textual support in (150): namely, “nothing is stronger than what is real” and “for saying there are many eternal [things] that have form and strength”. The first suggests that there are things other than what is ὁληθὴνος real, but that these are weaker than what is ὁληθὴνος (p. 135). The second suggests that the thesis being attacked is not just ‘there are many things’, but ‘there are many eternal things’ (and it also suggests that these are stronger than something). But the second passage can be taken as affirming that we have now established that the many things postulated must be eternal (because they must be such as the one is); not that the existence of many eternal things was what was initially postulated. Furthermore, on Loenen’s interpretation the senses would, of course, be correct: on his interpretation the phenomena do exist in the ordinary sense, but do not strictly exist in that they are unchanging; and this is precisely what our senses tell us. Yet Melissus unambiguously concludes that “it is clear that we did not see correctly”. This contradicts Loenen’s interpretation; yet his interpretation is really only suggested by certain opaque passages in (150). So the interpretation of (150) as deriving a denial of the phenomena, or any other plurality, from Eleatic metaphysics seems fairly secure.

The purpose of (150) is to deny the possibility of any plurality, but our concern is with the more specific denial of the phenomena. In firstly concluding that the senses are incorrect, Melissus initially concludes a weak form of scepticism – that is, although, contrary to appearances, the phenomena change, other features of the phenomena, what appears to the senses, might still be accurate. However, this possibility is abruptly dismissed, and it is concluded that it is unlikely that the phenomena exist at all – that is, this weak form of scepticism, is soon replaced by scepticism (S). (ii) also makes it clear that scepticism derives from the supposition of the superiority of reason over the senses: that if reason and the senses contradict one another, it is the senses that must be discarded. I argued that the

---

20 Loenen (pp. 17-25) also interprets Parmenides’ ἐστιν in this way and for similar reasons, except that with Parmenides he lacks anything like the preceding textual evidence.

21 Loenen would presumably defend himself against this claim by arguing that ὁρθὸς correctly = ὁληθὴν; and that ὁν ὁρθὸς ἐστὶν really means “we do not see [what] truly [is]”. But this is clearly an unnatural translation to say the least.
The assumption underlying (ii) is (P) anything that might be claimed to exist must have the properties derived by reason. However, this does not mean that what exists has only the properties derived by reason, so (150) does not give us rationalism (R). And, as we saw, (R) cannot be derived from Melissenean metaphysics mainly because there is simply no evidence that for Melissus physical reality is devoid of qualitative properties. In short, Melissus was a sceptic (S) but we can only confidently attribute rationalism (r) to him.

Melissus and Parmenides

If this interpretation of Melissus is correct, then Melissus was a far more radical philosopher than Parmenides. Many scholars would probably find this conclusion untenable. It is often assumed that Melissus' treatise essentially reproduced Parmenides' Way of Truth in clearer prose. Consequently, a line of argument for attributing certain theses to Parmenides is the argument from Melissus: Melissus clearly argued that being has property P; Melissus was a follower of Parmenides; therefore Parmenides argued for property P (since Aristotle, a supporting assumption is often implied, if not explicitly added: Melissus was not bright enough to add anything remarkably new to Parmenides). So it might be argued that if Melissus unambiguously argued that physical reality in general is changeless, then Parmenides too did not restrict his denial of change to the substratum of physical reality. But the strength of this argument depends on how original Melissus was in general. It is often claimed that Melissus departed from Parmenides in making being temporally (eg. Tarán: 1965, p. 176; Raven: 1948, pp. 82-3) and spatially infinite (eg. Kirk: 1983, p. 394; Raven: 1948, pp. 79-82). I have not dealt with the question of the temporality of Parmenidean being and do not wish to enter this debate here; but we have seen that Parmenidean being is spatially limited, while Melissean being is spatially infinite. Another point of originality that can be claimed for Melissus is his 'no void' argument against motion (147) (Kirk: 1960, pp. 2-3). Against this, Bicknell (1967, p. 3) maintains that the 'no void' argument is found in Parmenides' poem at Simp. Phys. 146.2-6 (B8.29-33). This, however, requires reading more into the text than is there (but cf. Guthrie: 1965, p. 36). Consequently, I am inclined to agree that this is another point of originality for Melissus. So if Melissus was original on these two points, at least, could he have been original in extending certain attributes of the substratum to physical reality in general? The fact that Melissus invented his own argument, at least if that argument is for one of Parmenides' conclusions, does little harm to the argument from Melissus; but the fact that he differs in at least one conclusion is a problem for the argument. So the argument is a little shaky. All the same, the conclusion of infinite extent seems less fundamental than the conclusion of a changeless physical reality. So it could still be argued that even if Melissus and Parmenides differed on some minor matters, they could not have differed on such a fundamental point. If they did, this would certainly undermine the tradition, universally accepted in antiquity, that these philosophers were of the same school. Consequently, the fact that for Melissus all physical reality is changeless does
Method and epistemology in the early Presocratics

seem to provide some evidence that for Parmenides it is not just the substratum that is changeless.

Against this, I should firstly point out that my interpretation of Melissus does not differ from my interpretation of Parmenides because, Parmenides being less clear in his expression, I was more cautious in my interpretation of him. The interpretations differ because the Way of Opinion compelled me to interpret Parmenides as not being a sceptic (S), whereas fragment (150) compelled me to interpret Melissus as in fact being a sceptic (S). Furthermore, as radical as the difference is between Melissus and Parmenides, it is not hard to see how this difference could be even if Melissus was an unoriginal disciple of Parmenides, who intended to do nothing more than express Parmenidean metaphysics in a clearer format. Parmenides and Melissus may never have met. Melissus may never have left his island home of Samos, and there is no reason to suppose that Parmenides ever visited it. Melissus may simply have been working from a copy of Parmenides’ poem. Consequently, if he were to misinterpret the poem, the misinterpretation could easily have gone uncorrected. Melissus is only concerned with the Way of Truth: the Way of Opinion is neglected in both the extant fragments and the summaries of his treatise (Simp. Phys. 103.14-104.15 (reproduced with B1-7); MXG 974a2-977a11 (A5)). As I hope I have made clear in my examination of Parmenides, it is very easy to interpret Parmenides’ Way of Truth as giving a complete description of physical reality without the counter-balancing implications of the Way of Opinion. This, I suggest, is exactly what Melissus has done. But what of Zeno? Was he also a sceptic (S), and if so can we account for such a departure from Parmenides by Zeno as we can with Melissus?

ZENO VS THE WORLD

It is not our concern, in the following account of Zeno, to solve Zeno’s paradoxes, nor necessarily even to determine just what his arguments were; but to consider just what it is he is arguing against. I will begin with his so called paradoxes against plurality. We are told that there were forty such arguments (Proc. Parm. 694.23 (A15)). Although some others of these may be alluded to in the testimonia, the following are the only arguments against plurality that are spelt out in any detail. Firstly:

But if it exists, it is necessary for each thing to have some bulk and magnitude, and for one part of it to be at a distance from the other. And the same argument applies to the protruding part. For that too will have a magnitude, and a part of it will protrude. Now it is all one to say this once and to say it for ever. For it will have no last part of such a sort that there is no longer one part in front of another. In this way if there exist several things it is necessary for them to be both small and large – so small as not to have a magnitude, so large as to be infinite (151: Simp. Phys. 141.1-8 (29B1); tB).

This is usually seen as an argument against the plurality of the phenomenal world, or pluralities in general including the phenomenal world. However,
it could be read as an argument against a plural substratum – that is, a divided substratum. Such an argument would proceed as follows. If we allow the substratum to be divided, “each thing” (part) resulting from such a division will still be extended. [But once we allow any division, such division would go on infinitely because being “is everywhere alike, if it is really divisible it will be divisible everywhere alike” (Simp. Phys. 140.1-2; tB).] At the end of such infinite division, the infinitely many resulting parts will still each have some magnitude; [so their sum will be infinity], making a divided substratum infinite contra Parmenides. And if this reading were correct, the ‘paradox’ need not relate to the plurality of the phenomena at all. This is not, however, the natural reading: the reference to actual division is supplied from Simplicius’ commentary, it is not found in the fragment; and the argument does not require actual division, only divisibility. On a more natural reading, Zeno is arguing that since objects in the phenomenal world (or pluralities in general) are extended [as we can see], they are in fact infinitely extended [contrary to what we see].

The last sentence of (151) makes it clear that (151) is in fact the second half of a pair of arguments. As Porphyry (in Simp. Phys. 139.27-32) claims, the first half is probably as follows: if the division does not result in some “final magnitudes” – if the products of infinite division are unextended – [then the sum of these resulting ‘parts’ will be zero]; so each item of a plurality will be nothing.22 This clearly fits as the other half of (151): it does conclude that each thing is “so small as not to have a magnitude”. In combination the pair of arguments then give unacceptable conclusions whether we assume that the final products of an infinite division are themselves extended or not. Since the arguments parallel each other except for the shift in this one assumption, this variation could also be read as an argument against a divided substratum, but again it reads most naturally as an argument against the plurality of the phenomena, for the same reasons as for (151).

A third argument resulting from infinite divisibility is as follows: each item of a plurality would be divisible, and each part resulting from this division would also be divisible ad infinitum; so there could be no true units; hence there could be no plurality since a plurality is composed of units (Philo. Phys. 42.12-7; 80.25-9; cf. Simp. Phys. 99.13-5 (A21)). However, Philoponus does present this argument as a proof that being is one and indivisible, and the plurality referred to is clearly the collection of parts of being. So this quite easily reads as an argument against a divided substratum. It may seem that the argument would, however, still apply to the phenomenal world – physical objects are extended, hence divisible ad infinitum. But extension is not sufficient for infinite actual division: this could occur because being is everywhere alike; but the phenomenal world is not everywhere alike.

This last argument could in fact have been used in combination with the preceding pair of arguments. Both of these arguments assume that infinite division results in final products – that infinite division is an operation that could be completed – whereas this last argument assumes

22But the attribution of Porphyry’s argument to Zeno is questionable (eg. Vlastos: 1971, pp. 128-9).
that infinite divisibility does not result in final products. So, used in combination, these three arguments give unacceptable conclusions whatever one’s presuppositions about infinite division. If all three arguments were used in combination, they presumably had the same purpose. Therefore, the fact that this last argument was most likely directed against the divisibility of being is some evidence that this was the purpose of all three arguments. However, the evidence is still stronger for the conclusion that the set is directed against the phenomenal world, at least in part, since this is the natural reading of two out of three arguments, and for the first of these we have a fragment (151), not just testimonia.

A fourth argument against plurality could also be read as an argument against a divided substratum:

If several things exist, it is necessary for them to be as many as they are, and neither more nor fewer. But if they are as many as they are, they will be finite. If several things exist, the things that exist are infinite. For there are always others between the things that exist, and again others between them. And in this way the things that exist are infinite (152: Simp. Phys. 140.29-33 (B3); tB).

Once the substratum is divided it consists of “several things” (parts) rather than one whole. The problem is that although there can only be a finite number of parts – ‘as many as there are’ – the division will go on infinitely producing infinitely many parts (again since being is everywhere alike) (cf. Fränkel: 1942, pp. 3-7). One problem with this is that (152) does not explicitly refer to division at all (although it remains a mystery why there should be “others between the things that exist” ad infinitum if there is no process of division involved).24

One argument against plurality, however, is clearly directed against the phenomenal world. This is spelt out by the prolix Philoponus (Phys. 42.12-30 (A21)). The argument is in essence as follows. The plurality is said to be composed of things like Socrates; since the plurality is composed of units, things like Socrates must be units. But Socrates “is not only Socrates, but also pale, philosophic, pot-bellied and snub-nosed” (tr. Lee: 1967); so Socrates is not one, a unit, after all, and likewise for all the other alleged ‘units’ of the plurality. So there are no units. Since a plurality consists of a number of units, there is no plurality. Lee (1967, p. 28), however, claims that the attribution of this argument to Zeno is dubious. He argues that it only occurs in the one passage of Philoponus; it is in marked contrast to his other arguments in that it does not involve infinite divisibility or regress; and such arguments are typical of the late 400s BC, which is later than Zeno would have written his book. But, firstly, the same argument is almost certainly alluded to in Simplicius (Phys. 138.31-139.2); and, secondly, it is not at all clear that either the Arrow or Moving Rows paradoxes involve.

---

23 μετατ'

24 See Kirk (1957, pp. 289-91) and Raven (1948, pp. 70-3) for a clear introduction to the standard interpretations of (151) and (152), and Barnes (1979, pp. 240-51) for a more critical examination of these paradoxes.
infinite divisibility or regress. All the same, its basis in the qualitative aspects of the phenomenal world does set it apart from Zeno's other known paradoxes.

In short, the only paradox against plurality that is unambiguously directed against the phenomenal world may well be falsely attributed to Zeno. However, although the other paradoxes could be designed only to show that Eleatic being is undivided, this is not the most natural interpretation: the implication of scepticism (S) can be avoided, but with difficulty.

Zeno is, of course, most famous for his four paradoxes of motion. We shall now turn to these. Firstly, there is the racecourse:

An object in motion must move through a certain distance; but since every distance is infinitely divisible the moving object must first traverse half the distance through which it is moving, and then the whole distance; but before it traverses the whole of the half distance, it must traverse half of the half, and again half of this half. If then these halves are infinite in number, because it is always possible to halve any given length, and if it is impossible to traverse an infinite number of positions in a finite time - this Zeno assumed as self-evident ... it is impossible to traverse any magnitude in a finite time (153: Simp. Phys. 1013.6-16; tr. Lee: 1967).

This paradox is, like most of the paradoxes against plurality, expressed in abstract terms – no actual phenomena are mentioned. So could it be that it has no bearing on the phenomenal world at all? This is unlikely to say the least. The argument simply does apply to motion in general: a man or a horse, to move, must move through a distance, and all distances are infinitely divisible if any are. But we need not dwell on this since any doubt that the paradoxes of motion apply to ordinary objects of the phenomenal world must soon dissolve once we turn to the Achilles and arrow paradoxes:

Achilles ... cannot possibly overtake the tortoise he is pursuing. For the overtaker must, before he overtakes the pursued, first come to the point from which the pursued started. But during the time taken by the pursuer to reach this point, the pursued advances a certain distance ... And so, during every period of time ... the pursued advances a yet further distance ... And so by taking distances decreasing in a given proportion ad infinitum because of the infinite divisibility of magnitudes, we arrive at the conclusion that not only will Hector never be overtaken by Achilles, but not even the tortoise (154: Simp. Phys. 1014.10-23; tr. Lee: 1967).

Everything is always at rest when it is in a space equal to itself, and if what is travelling is always in such a space at any instant, then the travelling arrow is motionless (155: Arist. Phys. 239b4-8 (A26); tB).25

25This is not a very literal translation of Aristotle's text. But what is added does seem to be required to produce any kind of argument from the text. In particular the text says 'everything
As we can see, (154) refers to a race between Achilles and a tortoise which is very much an event in the phenomenal world, so the impossibility of motion here unambiguously relates to the phenomena (the fact that the race is fictional obviously in no way diminishes this point). And likewise for the arrow paradox (155). And, of course, it is clear from the general nature of the arguments that if Achilles and arrows don't move, then no object in the phenomenal world moves.

The last paradox of motion is the moving rows:

The fourth is the argument about the bodies moving in the stadium from opposite directions, an equal number past an equal number; the one group starts from the end of the stadium, the other from the middle; and they move at equal speed. He thinks it follows that half the time is equal to its double. The fallacy consists in claiming that equal magnitudes moving at equal speeds, the one past a moving object and the other past a stationary object, travel for an equal length of time (156: Arist. Phys. 239b34-240a4 (A26); tB).

In the moving rows Aristotle does refer to a stadium. But other than this the language is very abstract: what moves are the ὄγκοι bodies or masses (see ch. 6). Such a term seems appropriate to refer to chunks of the substratum. But, again, in spite of the difficulties in interpreting just what the argument is here, the problem does seem to be one that would apply to motion in general, not just to the motion of chunks of the substratum.27

is always at rest or in motion[ŋ κινεῖται]. But, of course, there is no argument unless being “in a space equal to itself” is only a feature of rest. Barnes’ (1979, p. 277) move of simply dropping ŋ κινεῖται results in the most readable translation; but it is more likely that something was omitted after ŋ κινεῖται than that ŋ κινεῖται was mistakenly added. Lee (1967, pp. 79-80) suggests that the original text was essentially ‘everything is always at rest or in motion, but nothing is in motion when it is in a space equal to itself’. This, of course, gives us exactly the same argument as we get by omitting ŋ κινεῖται.

26 According to Elias (109.18-20 (A15); cf. Simp. Phys. 1012.27-9) there were five paradoxes of motion. Bicknell (1963, pp. 93, 103-4) suggests that the fifth paradox is the following: “What is moving is moving neither in the place in which it is nor in the place in which it is not” (DL 9.72 (B4); tB). I tend to agree, however, with the thesis that this is just a condensed version of the arrow (and another example of Diogenes Laertius’ tendency toward distorted and misleading ‘summaries’ (see ch. 4 note 73)). All the same, if it were a separate paradox, it could, at a push, be construed as arguing that physical reality as a whole is not moving in the place in which it is because then it would be at rest, nor in the place in which it is not because there is no place other than where all of physical reality is (and this last point is not true of objects in physical reality, so it would not stop them moving).

27 I have skimped a great deal of exegetical detail in my account of the paradoxes of motion. I have not questioned what the actual arguments were, only what the intended conclusions were, simply because this is all that is needed for the purposes of drawing out Zeno’s epistemology. However, for a clear and fairly comprehensive account of how the racecourse and Achilles paradoxes can and have been interpreted see Barnes (1979, pp. 265-75). These paradoxes have taken on something of a life of their own, and still puzzle philosophers today (although not necessarily in the form originally proposed by Zeno). Clear introductions to their modern manifestations are found in Ray (1991, esp. pp. 11-3, 20-3), Sainsbury (1988, esp. pp. 18-21) and Black (1954, esp. p. 98). For the arrow see Barnes (pp. 276-82) and Lee (1967, pp. 78-83) on interpretation; and Barnes, Sainsbury (pp. 22-3) and Black (pp. 144-7) on the solution (which is essentially the same whatever the interpretation – ie. even rest at an instant cannot be defined in relation to a single instant, but by comparing the arrows location
Finally, there are the paradoxes of place and the millet-seed. The first is as follows: “If everything that exists has a place, place too will have a place, and so on ad infinitum” (Arist. Phys. 209a23-4 (A24); tr. Hardie from Kirk: 1957), hence place does not exist. Again the general application of this paradox is hard to avoid in spite of the abstract expression of it. The millet-seed, however, is only a problem for the phenomena: a bushel of millet-seed makes a sound when it falls; there is a ratio [of force] between the bushel and a single millet-seed; so there will be a similar ratio between the sounds; hence the single seed will make a sound, but it doesn’t (Simp. Phys. 1108.14-28; cf. Arist. Phys. 250a19-22 (A29)). This could be a direct attack on the veracity of our senses – that is, the senses are deficient because we do not hear the quieter ‘sounds’. Or it could be pointing out an apparent contradiction within the phenomena – there must be a proportionately quieter sound, but there in no such sound. So the paradox attacks either the senses or the world the senses present to us. However, it is not clear that this paradox has the general implications of other paradoxes – denying all motion or pluralities: taken by itself, it could easily be meant to show that our senses sometimes misinform us, or incompletely inform us (compare Xenophanes in ch. 3). It is only by comparison with Zeno’s other paradoxes that we can reasonably conclude that the entire phenomenal world, or pluralities in general, is the target of the paradox.

In short, not all Zeno’s paradoxes clearly and unambiguously contradict sensory experience in general, but some do: specifically, the Achilles and the arrow. But once we accept that some of the paradoxes definitely imply (S), we should accept that all the paradoxes imply (S), since most probably do, and all possibly do.

THE PARADOXES, ZENO AND PARMENIDES

So the paradoxes imply scepticism (S). This seems to present a problem for my interpretation of Parmenides, who, I concluded, was not a sceptic (S), if Zeno was simply a faithful disciple of Parmenides. But from the fact that the paradoxes imply scepticism (S) it does not necessarily follow that Zeno was a sceptic (S). The paradoxes are polemical: they are designed to give opponents of the Eleatics some grief. And it is not impossible that Zeno (unlike Melissus) was being “deliberately sophistical”. According to Plato the purpose of Zeno’s book is to show that the hypothesis that “there is a plurality leads to even more absurd consequences than the hypothesis of the one” (Parm. 128d6-8 (A12); tr. Cornford from Plato: 1961). To this end he does not have to prove that plurality is impossible, but to present arguments that lead from the assumption of a plurality to greater difficulties than the arguments against the Eleatic one (we do not know what these

at that instant to some ‘neighbouring’ instant). The most difficult paradox to interpret is the moving rows. The more popular interpretation is clearly spelt out by Kirk (1957, pp. 296-7), which essentially says that this paradox disproves the possibility of discrete space, time and motion just as the racecourse and Achilles are meant to disprove the possibility of continuous space, time and motion. However, a much cruder paradox having nothing whatsoever to do with discreteness, spelt out by Barnes (pp. 286-92) and Lee (pp. 57-61), seems to best fit Aristotle’s text.
arguments against the one were; they may have been quite bad). If his desire was then just to make trouble for opponents of the Eleatics, he may not have been concerned if his paradoxes ‘disproved’ things that he himself accepted: even if Zeno believed that men and tortoises could move quite freely about the earth, he may have been quite happy to present arguments that imply that they cannot, simply because such a conclusion would doubtlessly annoy his opponents.

In fact there is good reason to suppose that Zeno was quite willing to present arguments that incidentally contradicted central doctrines of Parmenides. In particular, (151) implies that even undivided, but physically extended, Eleatic being would be infinite. We cannot escape this implication by arguing that Parmenidean being is not physically extended after all, since Zeno also says that what has no magnitude does not exist (Simp. Phys. 139.11-5 (B2)).\(^{28}\) If Zeno was a faithful disciple of Parmenides, this contradiction of Parmenides could be explained by accepting that Zeno was unashamedly sophistical. Simplicius at least found it quite plausible that Zeno would knowingly, but disingenuously, contradict Parmenides in his paradoxes: “Now it is indeed likely that Zeno argued on both sides by way of intellectual exercise (that is why he is called ‘two-tongued’) and that he actually published arguments of this sort to raise puzzles about the one” (Phys. 139.3-5; tB) (cf. Kirk: 1983, p. 269).

Another explanation of Zeno’s contradictions of Parmenides is, of course, that he was not as faithful a disciple as he is usually assumed to be. The conclusion that being is infinite if physically extended does not contradict Melissus. Furthermore, there is some suggestion that Zeno at least knew of Melissus: Simplicius (Phys. 139.18-9) alludes to a Zenonian argument from uniqueness to the absence of μέγεθος magnitude that suggests (144) (cf. Vlastos: 1971, pp. 119-20; Fränkel: 1942, p. 15 n. 40). Could Zeno have been influenced by Melissus’ deviations from Parmenides? If so he too might have accepted the consequence of scepticism (S) in direct opposition to Parmenides. This scenario, however, apparently contradicts Plato’s account of the relationship between Zeno and Parmenides. But how reliable is Plato’s account?

In Plato’s Parmenides, Zeno and Parmenides have travelled together to Athens. At the beginning of the dialogue Zeno has just completed a reading of his treatise, then Socrates suggests that “in a way, his book states the same position as [Parmenides] ... each expresses himself in such a way that your arguments seem to have nothing in common, though really they come to very much the same thing” (128a5-b7; tr. Cornford from Plato: 1961); a suggestion to which Zeno readily agrees. Of course, Zeno could have agreed to this even if he differed from Parmenides on certain details: such as the physical extent of being. But he could not have sincerely agreed if he

\(^{28}\)And, of course, the argument paired with (151) implies that undivided being would have no magnitude. And since Parmenidean being is physically extended, this also entails a contradiction of Parmenides. But the third argument, above, against plurality – that there can be no units of a plurality, because of infinite divisibility – does seem to follow not from extension – that is, each thing is extended hence divisible – but from divisibility directly. So it, at least, does not contradict a spatially extended Parmenidean being (cf. Lee: 1967, pp. 23-4).
differed from Parmenides on such a radical point as the existence or non-existence of the phenomenal world. Furthermore, the claim is that Zeno's treatise, his *paradoxes*, agree with Parmenides. So if Zeno is sincere and Plato is historically accurate, the apparent contradiction between Zeno and Parmenides on the phenomenal world cannot be explained away by suggesting that it was only the paradoxes, but not Zeno himself, that denounced the entire phenomenal world. Perhaps Zeno was not sincere in accepting Socrates suggestion: he may have been "two-tongued" with Socrates for the purposes of providing some "intellectual exercise". But it is more likely that the *Parmenides* is simply historically inaccurate.

Indeed Plato may have been trying to tell us as much himself, in a roundabout way. In the preamble, he sets up the dialogue as a third hand report of a conversation in the distant past: the dialogue is presented as being written by Cephalus, who heard it from Antiphon; although Antiphon had "worked hard at getting that conversation by heart" (126c7; tr. Cornford from Plato: 1961), he in turn relied on the report of Pythodorus; only Pythodorus heard the conversation first hand. Of course, Cephalus didn't write the dialogue, so the rest of this account can hardly be taken literally. However, Socrates was quite young when the conversation took place (127c4 (Al 1)), so Plato would have had to rely on at least a second hand report of an event long ago; consequently, the fiction of the preamble doubtlessly replicates the reality in its essentials. This makes it highly unlikely that any detail of the conversation as stated in the *Parmenides* reproduced what Zeno or Socrates actually said (although I suspect that the visit by Zeno and Parmenides to Athens is probably true). And if the *Parmenides* is not reliable, then Zeno, or just his paradoxes, could well have disagreed with Parmenides on the implications of his metaphysics for the phenomenal world. And if it was Zeno himself who disagreed with Parmenides, this disagreement may have been due to the influence of Melissus. In short, unless we accept the historical accuracy of the *Parmenides*, the fact that Zeno's paradoxes imply scepticism (S) presents no significant problem for the conclusion that Parmenides was not a sceptic (S); and there is little reason to accept the accuracy of the *Parmenides*.

**CONCLUSION**

In short, Melissian being is identical to physical reality. Consequently, for Melissus a changeless, and possibly spatially homogenous, being does imply scepticism (S). Zeno's paradoxes also imply scepticism (S), so perhaps he too went against his teacher Parmenides in this. But with Zeno things are not so clear: it may also be that his paradoxes were sophistical and did not betray his true beliefs.

The Homeric themes of revelation and seer-like intellectual perception are completely absent from Melissus and Zeno. Theirs is a purer rationalism. And, with Melissus at least, this purer rationalism led to a

---

29 Although, obviously, if the *Parmenides* are dismissed as unreliable, then it (128d6-8 (A12)) can no longer be used as a substantial support of the suggestion that the paradoxes could be sophistical.
stark, virtually propertiless reality. It is with Melissus then that epistemology first extends beyond science, the unseen, and concerns itself with, indeed disputes, everyday experience.
Conclusion

In this thesis I have tried to give a reasonably comprehensive account of the method and epistemology of the early Presocratics. As we saw, this involved a number of intertwining themes between the various philosophers; but it also involved unique insights and theories peculiar to individual philosophers. The story divided roughly into three parts: the first philosophers; Heraclitus; and then the Eleatics. These shifts in the nature of method and epistemology resulted from shifts in the metaphysical concerns of Heraclitus and Parmenides. In spite of this, certain themes developed gradually over the entire period of early Presocratic philosophy.

Firstly, there was a movement away from the unconscious acceptance of empirical knowledge. In the Iliad we found that knowledge was almost entirely empirical, but by the end of our story this situation had been entirely reversed. This reversal was not sudden: the first step away from the unquestioning acceptance of empirical knowledge was made by the first philosophers. Their methodology was still predominantly empirical; but tossed in with this empirical approach were the first occurrences of purely a priori arguments. In addition to this, Xenophanes opened the question 'just what are the limits of knowledge?', and this was directed principally at empirical knowledge. His own answer not only limited empirical knowledge to direct observation, or everyday experience, it even cautioned us against always accepting this. Then in Heraclitus we find a different qualification to the acceptance of everyday experience. He still based his method on the information of the senses, but this was explicitly qualified: the senses were necessary, but not sufficient; an understanding of the λόγος also required a certain intellectual capacity to interpret the information of the senses. These qualifications to empirical knowledge, however, still leave everyday experience essentially intact. The next step toward completely undermining even everyday experience was made unwittingly by Parmenides. He gave pre-eminence to a priori reasoning; only by a priori reasoning could we answer the most basic scientific question: 'what is the nature of the material basis of reality?' But it was only this that required pure a priori reasoning for Parmenides. However, due to a simple misunderstanding, Melissus extended the scope of a priori reasoning to include the determination of the nature of reality as a whole. And since the reality he derived contradicted everyday experience, even this was undermined.

A second persistent theme is the process that led to epistemological reflection. Since the epistemologies of early Presocratic philosophers were dependent on the scientific or metaphysical concerns of each philosopher, and these concerns changed, epistemology was blown along with these underlying changes. Consequently, any attempt to demonstrate a logical
development within early Presocratic epistemology would be doomed to failure; any logical development in Presocratic philosophy is to be found in its science and metaphysics. But, even if there is no logical development within epistemology, there is a certain logic to the development of epistemology from science. Put simply, scientific questions require some method for finding the answers; this can lead to conscious reflection on method; any method will have its epistemological consequences, so reflection on method will occasionally lead to reflection on these consequences.

By abandoning the authority of poets, the Milesians had to justify their theories on scientific matters – matters beyond everyday experience. That is, they were in need of a method. This method was principally empirical, and in their empirical approach they did not develop significantly from the approach found in the Iliad: there was a greater variety in the kinds of inference, but the observations used were just as casual and as dubious as those made by the mortals at Troy. So the Milesians did not try to invent from scratch their methodology in scientific inquiries. They did add to what was already there (most significantly, of course, by introducing a priori reasoning), but this was done uncritically. Serious critical reflection on method really only begins with Xenophanes. It was only after the Milesians' ad hoc approach led to a variety of contrary theories that Xenophanes attempted to impose greater rigour on their empirical methods. This greater rigour provided a means to decide between different theories, and thereby make determinate improvements in scientific understanding.

Furthermore, this critical evaluation of method led Xenophanes to spell out his epistemological position. Once serious reflection on method had began, it was probably inevitable that the epistemological presuppositions of the given method would become more explicit. So it should come as no surprise that Xenophanes was the first to spell out his epistemological position. After Xenophanes, both serious examination of methodology and explicit statements of the epistemological presuppositions of the methodology became standard practice. The particular metaphysical concerns of Heraclitus and Parmenides required them to rethink their methods (and we should note that they both produced far more systematic methods than the Milesians or Xenophanes). Heraclitean method implied that the senses are necessary but not sufficient for understanding the λόγος; a point he felt warranted being explicitly spelt out. Likewise, Eleatic method implied a pre-eminence of reason for determining the material basis of reality: a point Parmenides at least explicitly (although vaguely) spelt out. However, neither Heraclitus nor Parmenides engaged in much serious analysis of these presuppositions. Indeed it was probably Xenophanes who went the furthest in terms of analysis with his causal theory of knowledge. Ultimately, the metaphysical questions were the driving force of philosophy, and epistemology was destined to remain a side issue until this changed.

However, we should note that this path – from scientific and metaphysical inquiry to reflection on method, and from reflection on method to the explicit statement of epistemological presuppositions –
Conclusion

should not be overstated: metaphysical conclusions also have their epistemological consequences aside from method – for example, Melissus’ general scepticism about the senses was implied directly by his metaphysical conclusions.

A further theme that all but persisted throughout the early Presocratics was that epistemology lacked the generality required to make it truly philosophical. Xenophanean epistemology was limited to science; Heraclitus was only concerned with how we can understand the single metaphysical principle of opposition; and Parmenides was only concerned with knowledge of the material basis of reality. This did change at the end of the early Presocratics with the general scepticism and extensive rationalism of Melissus, and perhaps Zeno. But even Melissean epistemology only involved the statement of his epistemological positions: it did not involve any serious analysis of these positions. So in this respect all early Presocratic epistemology (except Xenophanes’ causal theory of knowledge) could be considered pre-philosophic.

This seems to result from the fact that early Presocratic epistemology was still the consequence of methodological and metaphysical concerns: it did not result from asking general epistemological questions such as ‘what is knowledge?’, ‘what can be known?’, or ‘what are the sources of knowledge?’ Nor did the Eleatic denial of everyday experience immediately motivate philosophers to ask these questions. The reaction of later Presocratics to the Eleatic assault on the phenomenal world was principally to address the metaphysics that led to these intolerable epistemological conclusions. They developed material bases for their cosmologies that were meant to conform to Eleatic requirements, as they saw them, in a way that allowed the existence of the changing, differentiated phenomenal world. In short, in later Presocratic philosophy, science and metaphysics still remained the order of the day, with epistemology a side issue: epistemological consequences still followed – principally, that the senses are limited and imperfect – yet there was no room for epistemological questions in their own right.

Epistemological concepts such as knowledge can be construed as relationships between people and the world. All the same, these concepts have more to do with people than the world: they have to do with how we relate to the world, more than how the world relates to us. Consequently, it should come as no surprise that while philosophers were focused on the world, epistemological conclusions were merely a by product of this and not the result of asking epistemological questions directly. But the focus of philosophy changed from the world to people with the sophists and Socrates. And it was Socrates’ pupil, Plato, who first asked ‘what is knowledge?’ (His answer to this, and the rationalism that accompanied it, were still tied up with his metaphysical concept of the forms; but they were not a simple consequence of this). So it seems that this shift to the human perspective was necessary before epistemology could begin to develop as a philosophical concern in its own right – before epistemological questions would be asked for their own sake.

It could be said, then, that the epistemology of the early Presocratics is not really epistemology at all in the modern sense of the word. This should
not lead us to discard the ‘epistemology’ of the Presocratics out of hand (because it isn’t real philosophy); rather it should only lead us to note how much epistemology has yet to change, and develop, at this early stage. Nor should this semantic point mislead us into denying that Presocratic ‘epistemology’ had any impact on epistemology proper. The use of rationalist methods by the Eleatics would have influenced Plato to answer the epistemological question ‘what is the source of knowledge?’ with ‘reason’. Xenophanes’ scepticism opened the question ‘what can we know?’ And Melissus’ willingness (or perhaps Parmenides’ apparent willingness) to accept a general scepticism of the senses – the only source of knowledge that people have taken for granted – would have influenced later philosophers to answer ‘nothing’.

Of course, epistemology did not have to develop the way it did. There seems to be no particular reason why the first philosophers were concerned with explaining the world around us, rather than reflection on questions about humanity and our place in the world. (Indeed the claim that the Presocratics are concerned with the world as opposed to humanity requires qualification, as we have seen with Heraclitus.) But the apparent necessity of reflection on the human condition for epistemology to become a fully fledged philosophical issue should not lead us to think that if philosophy had begun with reflection on the human condition, fully philosophical epistemology would have simply begun earlier. Reflection on the human condition does not automatically lead to reflection on epistemology. Something had to lead to epistemological reflection; and as it happened this was reflection on the world. With the issue opened up by the Presocratics, later philosophers such as Plato would have already been presupposed to ask epistemological questions for their own sake.

In short, science and metaphysics remained the central concern during the period of the early Presocratics. This led to reflection on method, and the explication of the epistemological consequences of the given method. But while science and metaphysics remained the central concern, there was little analysis of these epistemological consequences. Furthermore, these consequences seldom had the general import required of philosophical epistemology. All the same, by the end of the period, certain general consequences had arisen. The most important of these was that the empirical basis of knowledge that had been taken for granted in pre-philosophical Greece was brought into question. This did not immediately result in the asking of epistemological questions in their own right – a more human focus may well have been necessary for this – but the first tentative steps to this had certainly been taken.
## Abbreviations of Primary References

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ach. Aratus</td>
<td>Achilles, <em>Introduction to Aratus</em></td>
</tr>
<tr>
<td>Aesch. Per.</td>
<td>Aeschylus, <em>The Persians</em></td>
</tr>
<tr>
<td>Aesch. Prom.</td>
<td>Scholium to Aeschylus, <em>Prometheus Bound</em></td>
</tr>
<tr>
<td>Aetius</td>
<td>Aetius, <em>On the Scientific Beliefs of the Philosophers</em> (reproduced in H. Diels <em>Doxographi Graeci</em>)</td>
</tr>
<tr>
<td>Agath. Geo.</td>
<td>Agathemerus, <em>Geography</em></td>
</tr>
<tr>
<td>Alex. Met.</td>
<td>Alexander, <em>Metaphysics</em></td>
</tr>
<tr>
<td>Antigonus</td>
<td>Antigonus of Carystus, <em>Collection of Historical Miracles</em> (reproduced in A. Westerman <em>Paradoxographi Graeci</em>)</td>
</tr>
<tr>
<td>Arist. Heavens</td>
<td>Aristotle, <em>On the Heavens</em></td>
</tr>
<tr>
<td>Arist. N. Ethics</td>
<td>Aristotle, <em>Nichomachean Ethics</em></td>
</tr>
<tr>
<td>Arist. Senses</td>
<td>Aristotle, <em>On the Senses and their Objects</em></td>
</tr>
<tr>
<td>Arist. Soul</td>
<td>Aristotle, <em>On the Soul</em></td>
</tr>
<tr>
<td>Arrian</td>
<td>Arrian, <em>Dissertation on Epictetus</em>, Bodleian scholium</td>
</tr>
<tr>
<td>Ath. Epi.</td>
<td>Athenaeus, <em>Epitome</em></td>
</tr>
<tr>
<td>Ath. Schol.</td>
<td>Athenaeus, <em>Scholars at Dinner</em></td>
</tr>
<tr>
<td>Aug. CG</td>
<td>Augustine, <em>City of God</em></td>
</tr>
<tr>
<td>Clem. Misc.</td>
<td>Clement, <em>Miscellanies</em></td>
</tr>
<tr>
<td>Clem. Prot.</td>
<td>Clement, <em>Protreptic</em></td>
</tr>
<tr>
<td>Crates, Il.</td>
<td>Crates of Mallos, Geneva Scholium on the <em>Iliad</em></td>
</tr>
<tr>
<td>Dem. Style</td>
<td>Demetrius of Phaleron, <em>On Style</em></td>
</tr>
<tr>
<td>DL</td>
<td>Diogenes Laertius, <em>Lives of the Philosophers</em></td>
</tr>
<tr>
<td>Elias</td>
<td>Elias, <em>Commentary on the Categories</em></td>
</tr>
<tr>
<td>Ety. Mag.</td>
<td><em>Etymologicum Magnum</em> (anonymous)</td>
</tr>
<tr>
<td>Eus. Prep.</td>
<td>Eusebius, <em>Preparation for the Gospel</em></td>
</tr>
<tr>
<td>Eust. Il.</td>
<td>Eustathius, <em>Commentary on the Iliad</em></td>
</tr>
<tr>
<td>Heph.</td>
<td>Hephaestion, <em>Enchiridion</em></td>
</tr>
<tr>
<td>Her. Hom.</td>
<td>Heraclitus (Homericus), <em>Homerian Questions</em></td>
</tr>
<tr>
<td>Hero. Quant.</td>
<td>Herodian, <em>On Double Quantities</em></td>
</tr>
<tr>
<td>Hero. Speech</td>
<td>Herodian, <em>On Peculiar Speech</em></td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Herodotus</td>
<td>Herodotus, Histories</td>
</tr>
<tr>
<td>Hippo. Ref.</td>
<td>Hippolytus, Refutation of All Heresies</td>
</tr>
<tr>
<td>Iamb. Myst.</td>
<td>Iamblichus, On the Mysteries</td>
</tr>
<tr>
<td>Iamb. Pyth.</td>
<td>Iamblichus, On the Pythagorean Way of Life</td>
</tr>
<tr>
<td>Il.</td>
<td>Homer, Odyssey</td>
</tr>
<tr>
<td>Macro. Scipio.</td>
<td>Macrobius, Commentary on Scipio's Dream</td>
</tr>
<tr>
<td>MXG</td>
<td>Ps-Aristotle, Melissus, Xenophanes, Gorgias</td>
</tr>
<tr>
<td>Od.</td>
<td>Homer, Odyssey</td>
</tr>
<tr>
<td>Olymp. Stone</td>
<td>Ps-Olympiodorus, On the Divine and Sacred Art of the Philosopher's Stone</td>
</tr>
<tr>
<td>Or. Celsus</td>
<td>Origen, Against Celsus</td>
</tr>
<tr>
<td>Philo. Phys.</td>
<td>Philoponus, Commentary on the Physics</td>
</tr>
<tr>
<td>Plato, Crat.</td>
<td>Plato, Cratylus</td>
</tr>
<tr>
<td>Plato, H. Maj.</td>
<td>Plato, Hippias Major</td>
</tr>
<tr>
<td>Plato, Parm.</td>
<td>Plato, Parmenides</td>
</tr>
<tr>
<td>Plato, Rep.</td>
<td>Plato, Republic</td>
</tr>
<tr>
<td>Plato, Th.</td>
<td>Plato, Theaetetus</td>
</tr>
<tr>
<td>Plot.</td>
<td>Plotinus, Enneads</td>
</tr>
<tr>
<td>Plut. Col.</td>
<td>Plutarch, Against Colotes</td>
</tr>
<tr>
<td>Plut. Cold</td>
<td>Plutarch, The Primary Cold</td>
</tr>
<tr>
<td>Plut. E</td>
<td>Plutarch, On the E at Delphi</td>
</tr>
<tr>
<td>Plut. Isis</td>
<td>Plutarch, Isis and Osiris</td>
</tr>
<tr>
<td>Plut. Lect.</td>
<td>Plutarch, On Listening to Lectures</td>
</tr>
<tr>
<td>Plut. Love</td>
<td>Plutarch, On Love for One's Offspring</td>
</tr>
<tr>
<td>Plut. Moon</td>
<td>Plutarch, On the Face of the Moon</td>
</tr>
<tr>
<td>Plut. Old Men</td>
<td>Plutarch, Should Old Men Take Part in Politics?</td>
</tr>
<tr>
<td>Plut. Poetry</td>
<td>Plutarch, How to Study Poetry</td>
</tr>
<tr>
<td>Plut. Pythia</td>
<td>Plutarch, Why the Pythia No Longer Prophesies in Verse</td>
</tr>
<tr>
<td>Plut. Sol.</td>
<td>Plutarch, Solon</td>
</tr>
<tr>
<td>Plut. Super.</td>
<td>Plutarch, On Superstition</td>
</tr>
<tr>
<td>Plut. Table</td>
<td>Plutarch, Table Talk</td>
</tr>
<tr>
<td>Poll. Voc.</td>
<td>Pollux, Vocabulary</td>
</tr>
<tr>
<td>Poly.</td>
<td>Polybius, Universal History</td>
</tr>
<tr>
<td>Por. Hom.</td>
<td>Porphyry, Notes on Homer [IIiad]</td>
</tr>
<tr>
<td>Por. Nymphs</td>
<td>Porphyry, The Cave of the Nymphs</td>
</tr>
<tr>
<td>Proc. Alcib.</td>
<td>Proclus, Commentary on the First Alcibiades</td>
</tr>
<tr>
<td>Proc. Parm.</td>
<td>Proclus, Commentary on the Parmenides</td>
</tr>
<tr>
<td>Proc. Tim.</td>
<td>Proclus, Commentary on the Timaeus</td>
</tr>
<tr>
<td>Ps-Arist. Prob.</td>
<td>Ps-Aristotle, Problems</td>
</tr>
<tr>
<td>Ps-Arist. World</td>
<td>Ps-Aristotle, On the World</td>
</tr>
<tr>
<td>Ps-Plut. Apoll.</td>
<td>Ps-Plutarch, Consolation to Apollonius</td>
</tr>
<tr>
<td>Ps-Plut. Misc.</td>
<td>Ps-Plutarch, Miscellanies (reproduced in H. Diels Doxographi Graeci)</td>
</tr>
<tr>
<td>Sen. Quest.</td>
<td>Seneca, Natural Questions</td>
</tr>
<tr>
<td>Sext. M</td>
<td>Sextus Empiricus, Against the Mathematicians</td>
</tr>
<tr>
<td>Sext. Pyrrho.</td>
<td>Sextus Empiricus, Outlines of Pyrrhonism</td>
</tr>
<tr>
<td>Simp. Heavens</td>
<td>Simplicius, Commentary on The Heavens</td>
</tr>
<tr>
<td>Simp. Phys.</td>
<td>Simplicius, Commentary on the Physics</td>
</tr>
<tr>
<td>Soph. Oed.</td>
<td>Sophocles, Oedipus the King</td>
</tr>
<tr>
<td>Abbreviations of primary references</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Stob. Anth.</td>
<td>Stobaeus, <em>Anthology</em></td>
</tr>
<tr>
<td>Suda</td>
<td>The Suda Lexicon</td>
</tr>
<tr>
<td>Syrianus</td>
<td>Syrianus, <em>Commentary on Hermogenes</em></td>
</tr>
<tr>
<td>Them. Speeches</td>
<td>Themistius, <em>Speeches</em></td>
</tr>
<tr>
<td>Theo. Senses</td>
<td>Theosophia (anonymous)</td>
</tr>
<tr>
<td>Theon</td>
<td>Theophrastus, <em>On Vertigo</em></td>
</tr>
<tr>
<td>Tzet. II.</td>
<td>Theon of Smyrna, <em>Mathematics</em></td>
</tr>
<tr>
<td>Xen. Sparta</td>
<td>Xenophon, <em>Cyropaedia</em></td>
</tr>
<tr>
<td>Xenophon, <em>The Constitution of Sparta</em></td>
<td></td>
</tr>
</tbody>
</table>

**ANTHOLOGIES**

| Diehl | Ernest Diehl, *Anthologia Lyrica Graeca* |
| Hiller | Eduard Hiller, *Theonis Smyrnaei* |
| Jacoby | Felix Jacoby, *Die Fragmente der griechischen Historiker* (vol. 1A) |
| Littré | Emile Littré, *Hippocrates Opera Omni* |
| Nauck | August Nauck, *Tragicorum Graecorum Fragmenta* |
| Page | D. L. Page, *Poetae Melici Graeci* |
| West | M. L. West and R. Merkelbach, *Fragmenta Hesiodea* |
Bibliography


Baldry, H. C. 1932. "Embryological analogies in Presocratic cosmology" in *Classical Quarterly* 25, pp. 27-34.


Method and epistemology in the early Presocratics


Gallop, David 1979. “‘Is’ and ‘is not’” in The Monist 62, pp. 61-80.
Method and epistemology in the early Presocratics


Havelock, Eric A. 1957. The Liberal Temper in Greek Politics (Jonathan Cape: London).


Nussbaum, Martha C. 1972/1. "Ψυχή in Heraclitus, I" in *Phronesis* 17, pp. 1-16


Method and epistemology in the early Presocratics


Shorey, Paul 1911. “Note on Xenophanes fr. 18 (Diels) and Isocrates *Panegyricus 32*” in *Classical Philology* 6, pp. 88-9.


Verdenius, W. J. 1953. “Xenophanes 34, 3” in *Mnemosyne* ser. 4 vol. 6, p. 197.

1955. “Xenophanes frag. 18” in *Mnemosyne* ser. 4 vol. 8, p. 221.


1964 (reprint). *Parmenides* (Hakkert: Amsterdam).


